TOSHIBA

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SERVICE MANUAL

COLOUR TELEVISION

C00S Chassis

32ZD09G

32ZD09B

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CHAPTER 1 GENERAL ADJUSTMENTS

SAFETY INSTRUCTIONS

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" INSTRUCTIONS BELOW.

X-RAY RADIATION PRECAUTION

1. Excessive high voltage can produce potentially hazardous X-RAY RADIATION. To avoid such hazards, the high voltage must not be above the specified limit. The nominal value of the high voltage of this receiver is (A) kV at zero beam current (minimum brightness) under a (C) V AC power source. The high voltage must not, under any circumstances, exceed (B) kV.

   Refer to table-1 for high voltage (A), (B) & AC voltage (C). (See SETTING & ADJUSTING DATA on page 18)

   Each time a receiver requires servicing, the high voltage should be checked following the HIGH VOLTAGE CHECK procedure in this manual. It is recommended that the reading of the high voltage be recorded as a part of the service record. It is important to use an accurate and reliable high voltage meter.
2. The only source of X-RAY RADIATION in this TV receiver is the picture tube. For continued X-RAY RADIATION protection, the replacement tube must be exactly the same type tube as specified in the parts list.
3. Some part in this receiver have special safety-related characteristics for X-RAY RADIATION protection. For continued safety, parts replacement should be undertaken only after referring to the PRODUCT SAFETY NOTICE below.

SAFETY PRECAUTION

WARNING : Service should not be attempted by anyone unfamiliar with the necessary precautions on this receiver. The following are the necessary precautions to be observed before servicing this chassis.

1. An isolation transformer should be connected in the power line between the receiver and the AC line before any service is performed on the receiver.
2. Always discharge the picture tube anode to the CRT conductive coating before handling the picture tube. The picture tube is highly evacuated and if broken, glass fragments will be violently expelled. Use shatter proof goggles and keep picture tube away from the unprotected body while handling.
3. When replacing a chassis in the cabinet, always be certain that all the protective devices are put back in place, such as; nonmetallic control knobs, insulating covers, shields, isolation resistor-capacitor network etc.

PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the international hazard symbols on the schematic diagram and the parts list.
Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create shock, fire, X-ray radiation or other hazards.

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE “X-RAY RADIATION PRECAUTION”, “SAFETY PRECAUTION” AND “PRODUCT SAFETY NOTICE” ON PAGE 3 OF THIS MANUAL.

SET-UP ADJUSTMENT

■ The following adjustments should be made when a complete realignment is required or a new picture tube is installed. Perform the adjustments in order as follows :

1. Color Purity
2. Convergence
3. White Balance

Note: The PURITY/CONVERGENCE MAGNET assembly and rubber wedges need mechanical positioning. Refer to figure 1.
Mounting position of the purity magnet assembly should fit to same position as old one because slightly difference to the position depend on a kind of tube.

* There are no adjustment of purity and convergence in some picture tube (Unified with purity magnet)

COLOR PURITY ADJUSTMENT

NOTE : Before attempting any purity adjustments, the receiver should be operated for at least fifteen minutes.

1. Demagnetize the picture tube and cabinet using a degaussing coil.
2. Set the brightness and contrast to maximum.
3. Use a green raster from among the built-in test signals.
4. Loosen the clamp screw holding the yoke and slide the yoke backward or forward to provide vertical green belt (zone) in the picture screen.
5. Remove the Rubber Wedges.
6. Rotate and spread the tabs of the purity magnet (See figure 2.) around the neck of the picture tube until the green belt is in the center of the screen. At the same time, enter the raster vertically.
7. Slowly move the yoke forward or backward until a uniform green screen is obtained. Tighten the clamp screw of the yoke temporarily.
8. Check the purity of the red and blue raster.

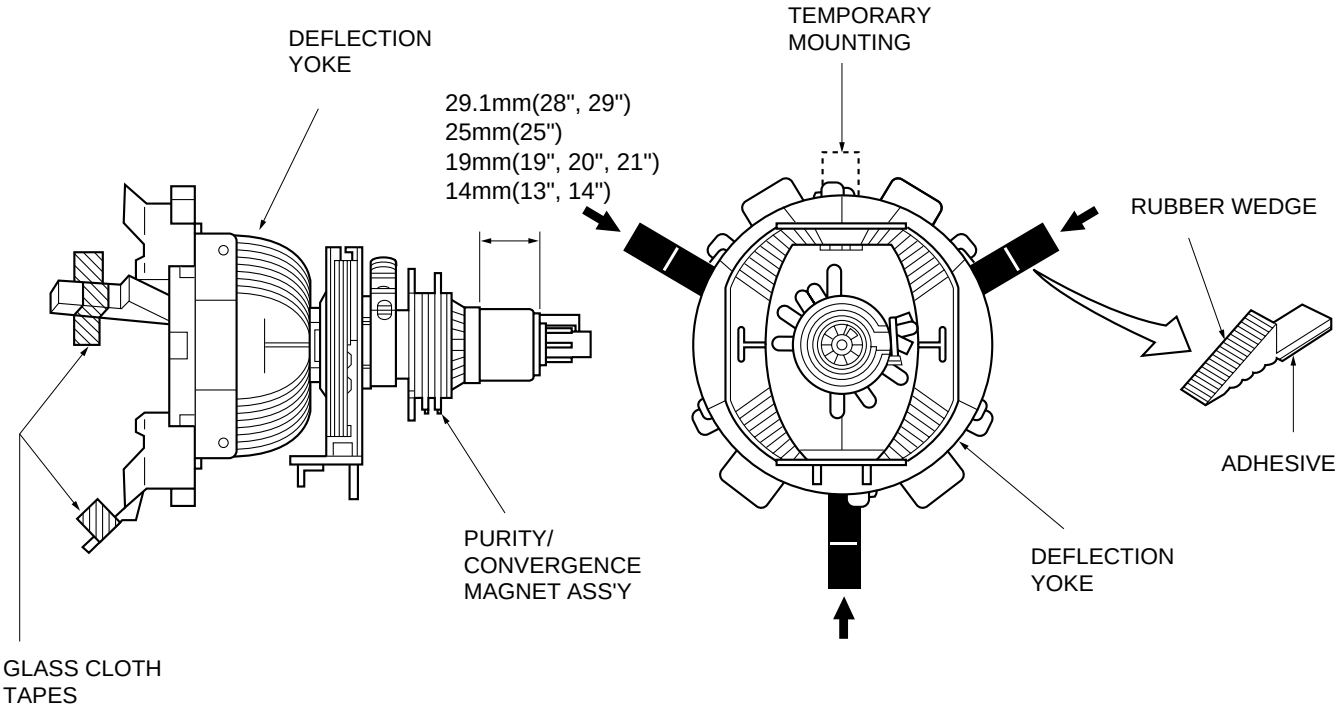


Figure 1.

CONVERGENCE ADJUSTMENTS

NOTE: Before attempting any convergence adjustments, the receiver should be operated for at least fifteen minutes.

■ CENTER CONVERGENCE ADJUSTMENT

1. Use the cross-dot pattern from among the built-in test signals.
2. Set the brightness and contrast for well defined pattern.
3. Adjust two tabs of the 4-Pole Magnets to change the angle between them (See figure 2.) and superimpose red and blue vertical lines in the center area of the picture screen.
4. Turn the both tabs at the same time keeping the angle constant to superimpose red and blue horizontal lines at the center of the screen.
5. Adjust two tabs of 6-Pole Magnets to superimpose red/blue line and green one. Adjusting the angle affects the vertical lines and rotating both magnets affects the horizontal lines.
6. Repeat adjustments 3, 4, 5 keeping in mind red, green and blue movement, because 4-Pole Magnets and 6-Pole Magnets have mutual interaction and make dot movement complex.

■ CIRCUMFERENCE CONVERGENCE ADJUSTMENT

1. Loosen the clamping screw of deflection yoke slightly to allow the yoke to tilt.
2. Temporarily put a wedge as shown in figure 1. (Do not remove cover paper on adhesive part of the wedge.)
3. Tilt front of the deflection yoke up or down to obtain better convergence in circumference. (See figure 3.) Push the mounted wedge into the space between picture tube and the yoke to fix the yoke temporarily.
4. Put other wedge into bottom space and remove the cover paper to stick.
5. Tilt front of the yoke right or left to obtain better convergence in circumference. (See figure 3.)
6. Keep the yoke position and put another wedge in either upper space. Remove cover paper and stick the wedge on picture tube to fix the yoke.
7. Detach the temporarily mounted wedge and put it in another upper space. Stick it on picture tube to fix the yoke.
8. After fixing three wedges, recheck overall convergence. Tighten the screw firmly to fix the yoke and check the yoke is firm.
9. Stick three adhesive tapes on wedges as shown in figure 1.

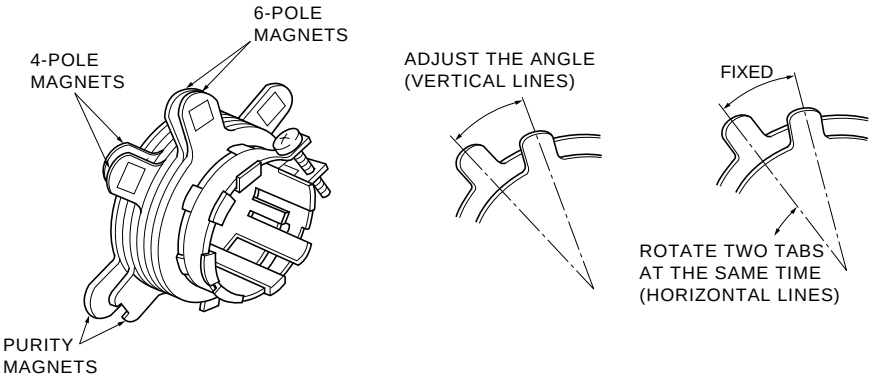
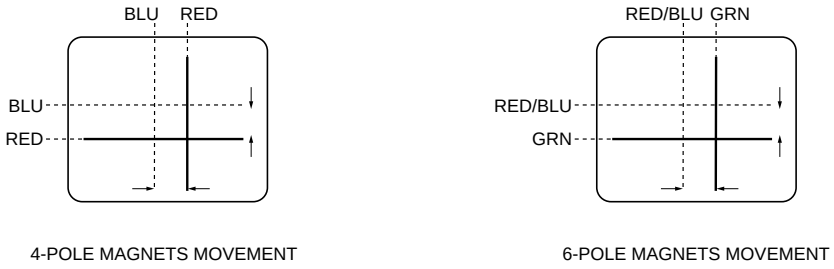


Figure 2.



Center Convergence by Convergence Magnets

Circumference Convergence by DEF Yoke

Figure 3. Dot Movement Pattern

SERVICE MODE

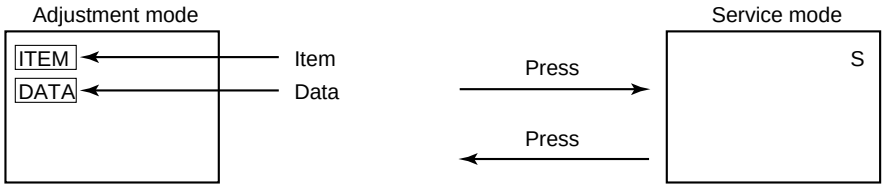
1. ENTERING TO SERVICE MODE

1) Press 🔇 button once on Remote Control.
2) Press 🔇 button again to keep pressing.
3) While pressing the 🔇 button, press MENU button on TV set.

(Service mode display)

2. DISPLAYING THE ADJUSTMENT MENU

1) Press MENU button on TV.



3. KEY FUNCTION IN THE SERVICE MODE

The following key entry during display of adjustment menu provides special functions.

A single horizontal line ON/OFF:	INFO button (on Remote) or ⊖ button (on TV)
Test signal selection :	⊖ button (on Remote)
Selection of the adjustment items :	Channel ▲/▼ (on TV or Remote)
Change of the data value :	Volume ◿ +/– (on TV or Remote)
Adjustment menu mode ON/OFF :	MENU button (on TV)
Initialization of the memory (QA02) :	CALL + Channel button on TV (▲)
Reset the count of operating protect circuit to “00”:	CALL + Channel button on TV (▼)
“RCUT” selection :	1 button
“GCUT” selection :	2 button
“BCUT” selection :	3 button
“CNTX” (or “SCNT”) selection :	4 button
“COLC” selection :	5 button– – – – – Color thickness correction
“TNTC” selection :	6 button note: Displayed differently as shown below, depending on the setting of the receiving color system.
Self diagnostic display ON/OFF :	9 button COLP (PAL) COLC (NTSC) COLS (SECAM)

CAUTION : Never try to perform initialization unless you have changed the memory IC.

4. SELECTING THE ADJUSTING ITEMS

1) Every pressing of CHANNEL ▲ button in the service mode changes the adjustment items in the order of table-2. (▼ button for reverse order)

Refer to table-2 for preset data of adjustment mode.
(See SETTING & ADJUSTING DATA on page 18)

5. ADJUSTING THE DATA

1) Pressing of VOLUME +/– button will change the value of data in the range from 00H to FFH. The variable range depends on the adjusting item.

6. EXIT FROM SERVICE MODE

1) Pressing POWER button to turn off the TV once.

■ INITIALIZATION OF MEMORY DATA OF QA02

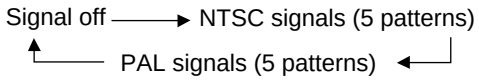
After replacing QA02, the following initialization is required.

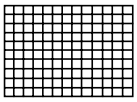
1. Enter the service mode, then select any register item.
2. Press and hold the CALL button on the Remote, then press the CHANNEL ▲ button on the TV. The initialization of QA02 has been complated.
3. Check the picture carefully. If necessary, adjust any adjustment item above. Perform “Auto search Memory” on the owner’s manual.

CAUTION: Never attempt to initialize the data unless QA02 has been replaced.

7. TEST SIGNAL SELECTION

1) Every pressing of ⊕ button on the Remote Control changes the built-in test patterns on screen as described below in SERVICE MODE.

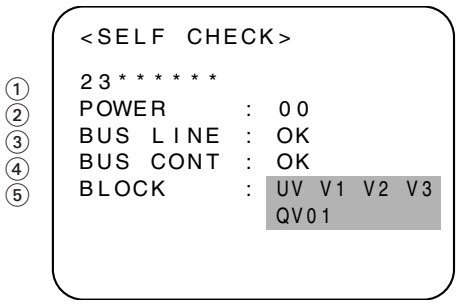


Signals	Picture
• Red raster • Green raster • Blue raster • All White	
• Black cross-hatch	

* The signals marked with ■ are not usable to display in the Test signal for some model.

8. SELF DIAGNOSTIC FUNCTION

1) Press “9” button on Remote Control during display of adjustment menu in the service mode.
   The diagnosis will begin to check if interface among IC’s are executed properly.
2) During diagnosis, the following displays are shown.



Indicated color of mode now selected : Green and Red
Indicated color of other modes : White

Green : Normal
Red : The microcomputer operates to provide judgement of no video signal. The red color is still indicated though the signal is input, failure may exist in input signal line including QV01.
QV01 : In case of indication green ---Normal
In case of indication red with input signal----
Failure may exist in output line including QV01.

① Part number of microcomputer (QA01)
② Operation number of protecting circuit ----“00” is normal.
When indication is other than “00”, overcurrent apts to flow, and circuit parts may possibly be damaged.
③ BUS LINE CHECK ----“OK” is normal.
“SDA1-GND” ---------- SDA-GND short circuit.
“SCL1-GND” ---------- SCL-GND short circuit.
“SCL1-SDA1” ---------- SCL-SDA short circuit.
④ BUS CONT ----“OK” is normal.
When indication shows “Q ○○○ NG”, the device with the number may possibly be damaged.
⑤ BLOCK
UV : TV reception mode
V1 : VIDEO 1 input mode (➔1)
V2 : VIDEO 2 input mode (➔2)
V3 : VIDEO 3 input mode (➔3)

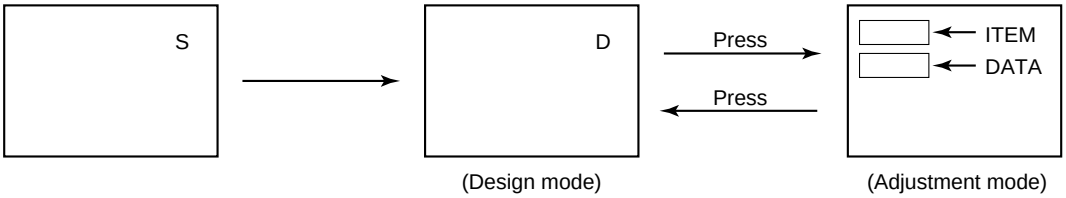
NOTE: Component which controls character display on screen is ICF01 (TELETEXT IC.). If this display function fails to operate due to damage in ICF01, self diagnosis procedure is as follows.
(1) In case that power indicator is blinking with interval of 0.5 seconds; it means protecting circuit (Current limiter) is operating, and circuit components may possibly be damaged. Check related components.
(2) In case that power indicator is blinking with interval of 1 second; Protecting circuit does not operate, but a part of Bus line does not operate normally. Check Bus line.

* The items marked with ■ are not usable to display in the SELF DIAGNOSTIC FUCTION for some model.

DESIGN MODE

1. ENTERING TO DESIGN MODE

1) Select the Service mode. 2) While pressing 🔇 or CALL button on Remote and press MENU button on TV. 3) Press MENU button on TV.



(Design mode) (Adjustment mode)

When QA02 is initialized, items “OPT0” and “OPT1” of DESIGN MODE are set to the data of the representative model of this chassis family.
Therefore, because ON-SCREEN specification remains in the state of the representative of model. This model is required to reset the data of items “OPT0” and “OPT1”.

2. SELECTING THE ADJUSTING ITEMS

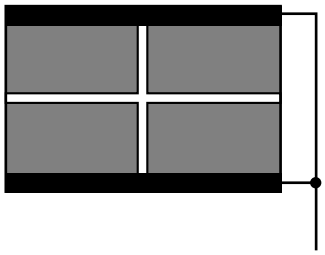
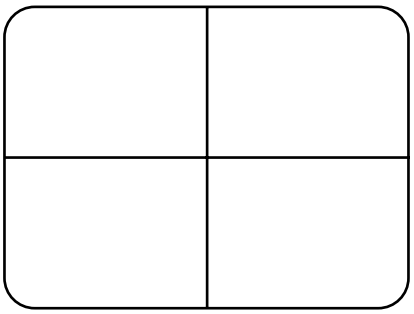
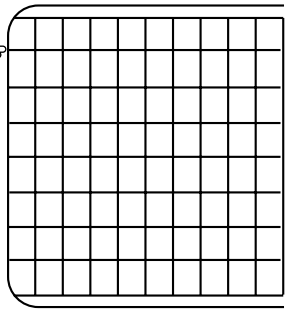
Every pressing of CHANNEL ▼ button in the design mode changes the adjustment items in the order of table-3.
(▲ button for reverse order)

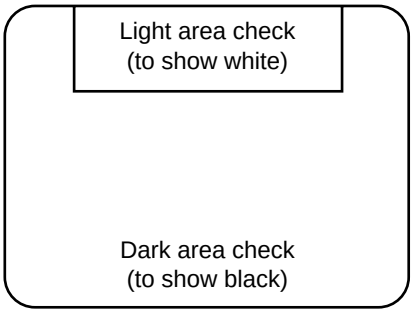
Refer to table-3 for data of design mode.
(See SETTING & ADJUSTING DATA on page 18)

3. ADJUSTING THE DATA

Pressing of VOLUME ▲ or ▼ button will change the value of data.

ELECTRICAL ADJUSTMENTS

ITEM	ADJUSTMENT PROCEDURE
FOCUS VR ADJ	1. Enter the service mode, then select any register item. 2. Press the TV/VIDEO button on the Remote until the black cross-bar pattern appears on the screen. 3. Adjust the FOCUS control (on T461) for well defined scanning lines on the picture screen.
SUB-BRIGHTNESS (BRTC) Note: Constrict the picture height until the vertical retrace line appears adjusting the item HIT (HEIGHT).	1. Set CONTRAST to minimum, and BRIGHTNESS to center by adjusting user controls. 2. Set the TV in service mode to get white cross-bar of inside pattern. 3. Select BRTC (brightness correction), and adjust the ◿ – /+ button to reduce the value so that white portion of inside pattern slightly light. 4. Adjust ◿ – /+ button to increase the data value of BRTC, and set it just before the difference between the belt of vertical retrace and the border of black portion of inside pattern is visible. After that, return vertical height and contrast.  Belt of vertical retrace
HORIZONTAL POSITION ADJUSTMENT (HPOS) VERTICAL POSITION ADJUSTMENT (VPOS)	1. Set the TV in service mode, and get black or white cross-bar signal with VIDEO button on remote hand unit. 2. Select either HPOS (Horizontal picture phase) or VPOS (Vertical picture phase) with CHANNEL ▲, ▼ buttons, and adjust horizontal or vertical picture position in the center of screen with VOLUME ◿ – /+ buttons. 
VERTICAL AMPLITUDE ADJUSTMENT (HIT)	1. Set the TV in service mode, and get black or white cross-hatch signal with VIDEO button on remote hand unit. 2. Select HIT (Vertical amplitude) with CHANNEL ▲, ▼ buttons, and adjust vertical amplitude with VOLUME ◿ – /+ buttons so that vertical amplitude lacks a little. 3. Adjust vertical amplitude with VOLUME ◿ – /+ buttons so that the first bar on cross-hatch signal touches edge of screen. The first ☞ 

ITEM	ADJUSTMENT PROCEDURE
WHITE BALANCE ADJUSTMENT ● CUTOFF ADJUSTMENT (RCUT) (GCUT) (BCUT) ● DRIVE ADJUSTMENT (GDRV) (BDRV)	1. Set Contrast to 40, and brightness to +20 by picture control. 2. Set the TV in service mode, and get the inside W/B adjusting signal with VIDEO button. 3. Select RCUT, GCUT and BCUT with CHANNEL ▲, ▼ buttons, to set individual values to Initial reference data, and to set GDRV and BDRV to Initial reference data with VOLUME ◿ – /+ buttons (See page 18). 4. Press -/- - button on the remote control and rotate Screen VR to get one slight horizontal line on screen. Note: Every pressing of -/- - button provides Horizontal line picture and Normal picture alternately. 5. Press -/- - button to release horizontal line picture, and select the two other colors which did not light in the above step with CHANNEL ▲, ▼ buttons. Then tap VOLUME ◿ – /+ buttons so that three colors slightly light in the same level. ※ To correct white balance in light area, select GDRV and BDRV with CHANNEL ▲, ▼ buttons to adjust. ※ To correct white balance in dark area, perform fine adjustment of RCUT, GCUT and BCUT. 

(Reference Factory Adjustments)

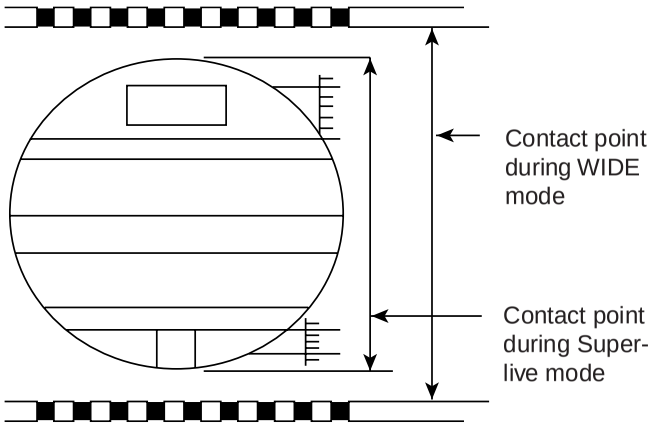
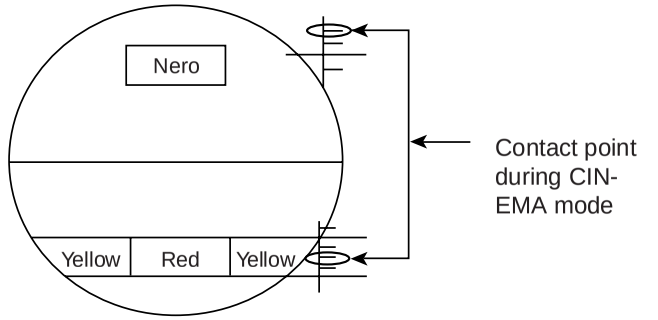
Items	Names	Settings (User control)	Input signals	Measuring points	Adjusting methods	Adjusting standards
[SCNT]	Sub-contrast	Dynamic MODE Screen size: WIDE Audio system: I	Sub-bright signal (PAL-I Signal)	TP46B	① Adjust the amplitude from the pedestal level to the white peak.	2.5 ± 0.1 Vp-p
[BRTC]	Sub-bright Center	Dynamic MODE Screen size: WIDE	Sub-bright Signal	Screen adjust-ment	① Adjust the number of collapsed black lines of the sub-bright signal. ② To adjust after W/B, [SCNT] adjustment.	4±1.5 pieces Screen adjustment
[COLP]	Sub-color center PAL	Dynamic MODE Screen size: Dynamic	Sub-bright Signal (PAL)	TP46B	① Adjust the amplitude of B-Y. (Be sure to apply Y mute during adjustment)	1.2 ± 0.1 Vo-p
SCREEN VR [RCUT] [GCUT] [BCUT] [GDRV] [BDRV]	R Cutoff G Cutoff B Cutoff G Drive B Drive	MODE Screen size: WIDE [RCUT]: 40H [GCUT]: 40H [BCUT]: 40H [GDRV]: 35H [BDRV]: 35H		Screen adjustment	① Enter Horizontal Straight-line Mode. ② Gradually increase the screen VR until R, G, or B line starts to light up slightly. ③ Determine the screen VR adjustment po-sition here. ④ Gradually increase remaining two screen VRs – except the line that lit up as men-tioned in item ② above – until respective line starts to light up slightly. (Adjust until the screen becomes almost white.) ⑤ Exit from Horizontal Straight-line Mode. ⑥ Using CA100, repeat this adjustment until correct value is set to both the dark and bright parts.	Bright part (103cd/m^2) 8750K-0.002uv Dark part (17cd/m^2) 8750K-0.002uv Screen judgment (CA100)

Items	Names	Settings (User control)	Input signals	Measuring points	Adjusting methods	Adjusting standards
[SBY]	SECAM B-Y Black level		SECAM Color bar	TP01	① Vary [SBY] so that the level of mono-chrome signal part aligns with that of BLK.	0 ± 10 mV
[SRY]	SECAM R-Y Black level		SECAM Color bar	TP02	① Vary [SRY] so that the level of mono-chrome signal part aligns with that of BLK.	0 ± 10 mV
[COLS]	Sub-color Center SECAM	Dynamic MODE Screen size: WIDE	SECAM Color bar	TP46B	① Adjust the amplitude of B-Y. (Be sure to apply Y mute during adjust-ment)	1.6 ± 0.1 Vo-p (Pedestal to Peak)

1. Data adjustment

<table>
<tr><th></th><th>Adjusting items</th><th colspan="2">Adjusting methods</th></tr>
<tr><td rowspan="3">Vertical</td><td>WIDE mode
Vertical amplitude [HIT]

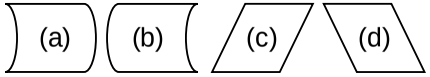
Vertical position [VPS1]</td><td>PAL WG Phillips Pattern, User adjustment standard
Adjust the vertical amplitude by [HIT] so that both upper and lower flags will disappear from the screen.

PAL Phillips Pattern, User adjustment standard
Adjust the vertical position [VPS1] with Phillips Pattern so that the vertical screen position will come to the center (see the right sketch).</td><td rowspan="2"> 
</td></tr>
<tr><td>Super-live mode
Vertical amplitude [HIT]</td><td>PAL Phillips Pattern, User adjustment standard
Adjust the vertical amplitude by [HIT] so that the top and bottom of the circle will touch the CPT mask with Philips Pattern (see the right sketch).</td></tr>
<tr><td>CINEMA mode
Vertical amplitude [HIT]</td><td>Phillips Pattern, User adjustment standard
Adjust the vertical amplitude by [HIT] so that the points shown in the right bottom sketch will touch the CRT mask (see the right sketch).</td><td> 
</td></tr>
</table>

2. Circuit adjustment (Volume/data adjustment)

No.	Target model names	Adjusting items	Adjusting methods
1	All models	Focus adjustment (1) HOR. FOCUS	Conditions: PAL Retoma signal WIDE mode, User adjustment standard Adjustment: Set it at the position, where the screen center becomes optimum focus and most counterclockwise, using the focus volume (F1) of the fly-back transformer (T461).
		Focus adjustment (2) VERT.FOCUS	Conditions: PAL Retoma signal WIDE mode, User adjustment standard Adjustment: Set it at the position, where the screen center becomes optimum focus and most counterclockwise, using the focus volume (F2) of the fly-back transformer (T461).
2	All models	Vertical position adjustment	Conditions: PAL WG Phillips Pattern WIDE mode, User adjustment standard Adjustment: Use [VPS1] and make adjustments so that the upper and lower positions will touch the mask. (Adjust and orient CPT either toward the south or north. If this is impossible, offset the difference.)

3. Data Adjustment

	Adjustment items	Adjustment methods
Horizontal	WIDE mode (During 4:3) Horizontal phase: [HPOS] Horizontal amplitude: [WIDE] Side DPC: [PARA] Trapezoidal distortion: [TRAP] Corner distortion: [CNR] Center warp: [CPAR] Parallelogram distortion: [CSAW]	Use PAL WG Phillips Pattern and adjust the horizontal amplitude to fit the mask to the frames of left and right flags in WIDE mode. Use PAL WG Phillips Pattern and adjust so that the side-pin and trapezoidal distortions become optimum in WIDE mode. Use the horizontal phase [HPOS] for the horizontal screen position, and make adjustments so that the position will become a center. Check and confirm the side-pin at the mode of 4:3. (If necessary, examine the grade of side panel at the mode of 4:3 and reconfirm) • **Note:** In case distortion adjustment is insufficient by the [PARA] [TRAP] adjustments, make adjustments by using the data of [CNR], [CPAR], and [CSAW].  ① Decrease [CPAR] in case of the distortion shown in Fig. (a). On the contrary, increase [CPAR] in case of the distortion shown in Fig. (b). ② Decrease [CSAW] in case of the distortion shown in Fig. (c). On the contrary, increase [CSAW] in case of the distortion shown in Fig. (d).
	Super-live mode Horizontal amplitude: [WIDE] Side DPC: [PARA] Trapezoidal distortion: [TRAP] Horizontal phase [HPOS] Corner distortion: [CNR]	Use PAL Phillips Pattern and fit the frames of the left and right flags to the mask in Super-live and WIDE modes. Make adjustments to achieve optimum side-pin distortion and trapezoidal distortion. If any further adjustment is required, use the horizontal phase [HPOS] and corner distortion [CNR] for adjustment.
	CINEMA mode Horizontal amplitude: [WIDE] Side DPC: [PARA] Trapezoidal distortion: [TRAP] Horizontal phase: [HPOS] Corner distortion: [CNR]	Use PAL Phillips Pattern and adjust the horizontal amplitude to fit the mask to the frames of left and right flags in CINEMA mode. Make adjustments to achieve optimum side-pin distortion and trapezoidal distortion. If any further adjustment is required, use the horizontal phase [HPOS] and corner distortion [CNR] for adjustment.

CIRCUIT CHECK

HIGH VOLTAGE CHECK

CAUTION: There is no HIGH VOLTAGE ADJUSTMENT on this chassis. Checking should be done following the steps below.

1. Connect an accurate high voltage meter to the second anode of the picture tube.
2. Turn on the receiver. Set the BRIGHTNESS and CONTRAST controls to minimum (zero beam current).
3. High voltage must be measured below (B) kV.

Refer to table-1 for high voltage (B).
(See SETTING & ADJUSTING DATA on page 18)

4. Vary the BRIGHTNESS control to both extremes to be sure the high voltage does not exceed the limit under any conditions.

CHAPTER 2 SPECIFIC INFORMATIONS

SETTING & ADJUSTING DATA

【SAFETY INSTRUCTIONS】

		32”
HIGH VOLTAGE AT ZERO BEAM:	(A)	33.2 kV
MAX HIGH VOLTAGE:	(B)	34.0 kV
AV VOLTAGE	(C)	220~240 V

Table-1

【SERVICE MODE】

ADJUSTING ITEMS AND DATAS IN THE SERVICE MODE:

Item	Adjustment	Reference data
RCUT	R CUTOFF (B/W)	40H
GCUT	G CUTOFF (B/W)	40H
BCUT	B CUTOFF (B/W)	40H
GDRV	R DRIVE	35H
BDRV	B DRIVE	35H
CNTX	SUB CONTRAST MAX	7FH
BRTC	SUB BRIGHT CEN	80H
COLC	SUB COLOR CEN NTSC	00H
TNTC	SUB TINT CEN	20H
COLP	SUB COLOR CEN PAL	3DH
COLS	SUB COLOR CEN SECAM	3DH
COLD	SUB COLOR CEN DTV	3DH
SCNT	SUB CONTRAST	08H

Item	Adjustment	Reference data
SRY	SECAM R-Y	08H
SBY	SECAM B-Y	08H
HPOS	50Hz H-POSITION	67H
VPOS	V-POSITION	00H
HIT	HEIGHT	38H
VLIN	V-LINEARITY	13H
VSC	V-S CORRECTION	2DH
VPS2	V-SHIFT	40H
WID	PICTURE WIDTH	1FH
PARA	E-W PARABOLA	09H
CNR	E-W CORNER	11H
TRAP	TRAPEZIUM	4FH
VFC	V-F CORRECTION	0FH

Table-2

【DESIGN MODE】

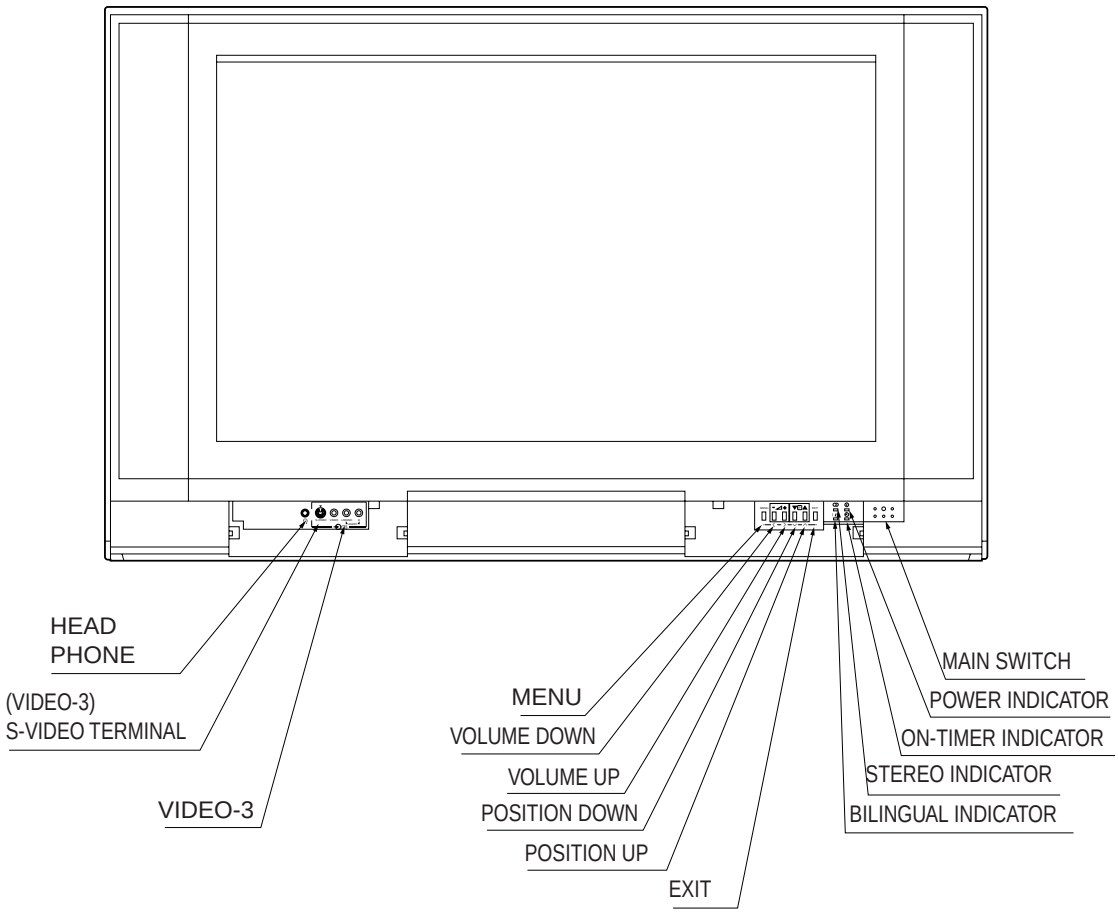
ADJUSTING ITEMS AND DATAS IN THE DESIGN MODE:

Item	Name of adjustment		Data		Remarks
		Preset Data	09G	09B	
OPT0	OPTION 0	A0H	A0H	81H	
OPT1	OPTION 1	76H	76H	76H	
OPT2	OPTION 2	04H	00H	00H	
OPT3	OPTION 3	00H	00H	00H	

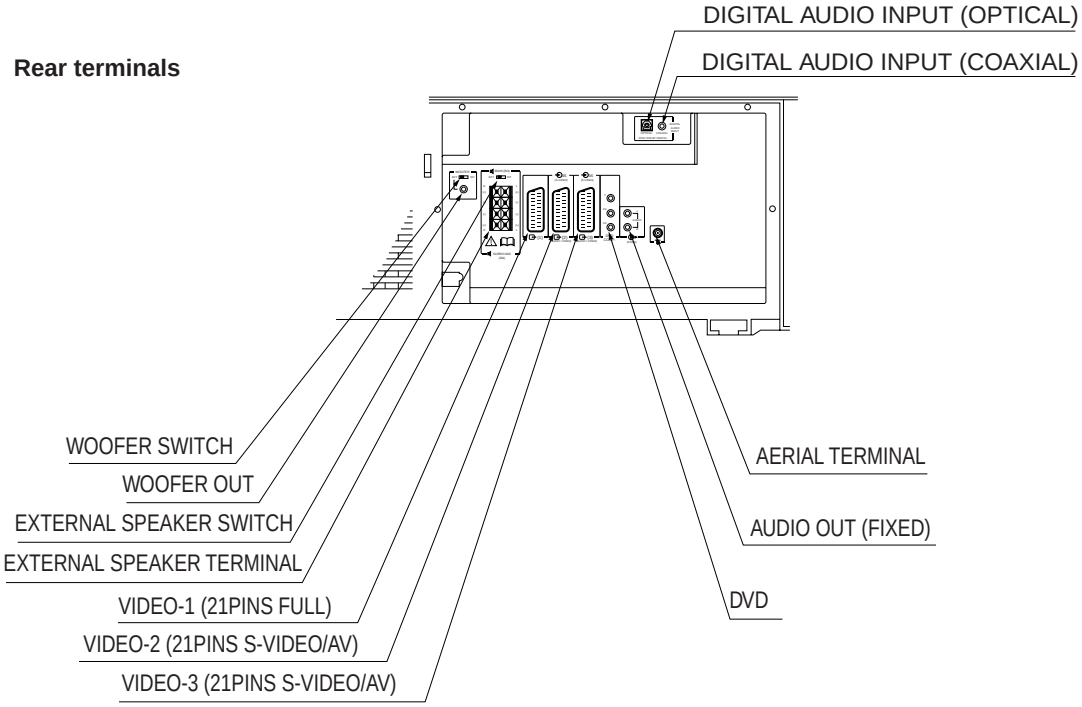
Table-3

LOCATION OF CONTROLS

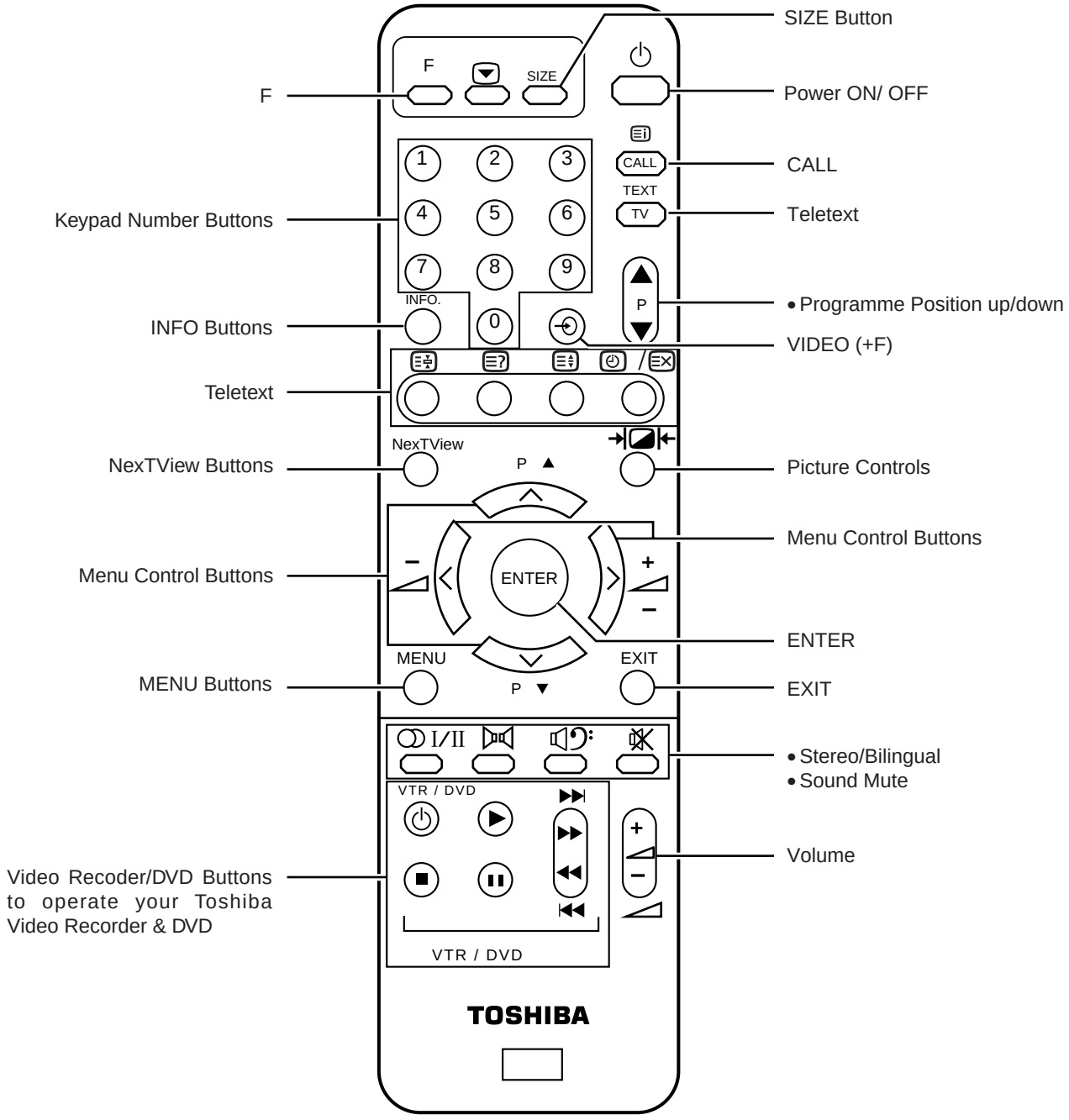
Front



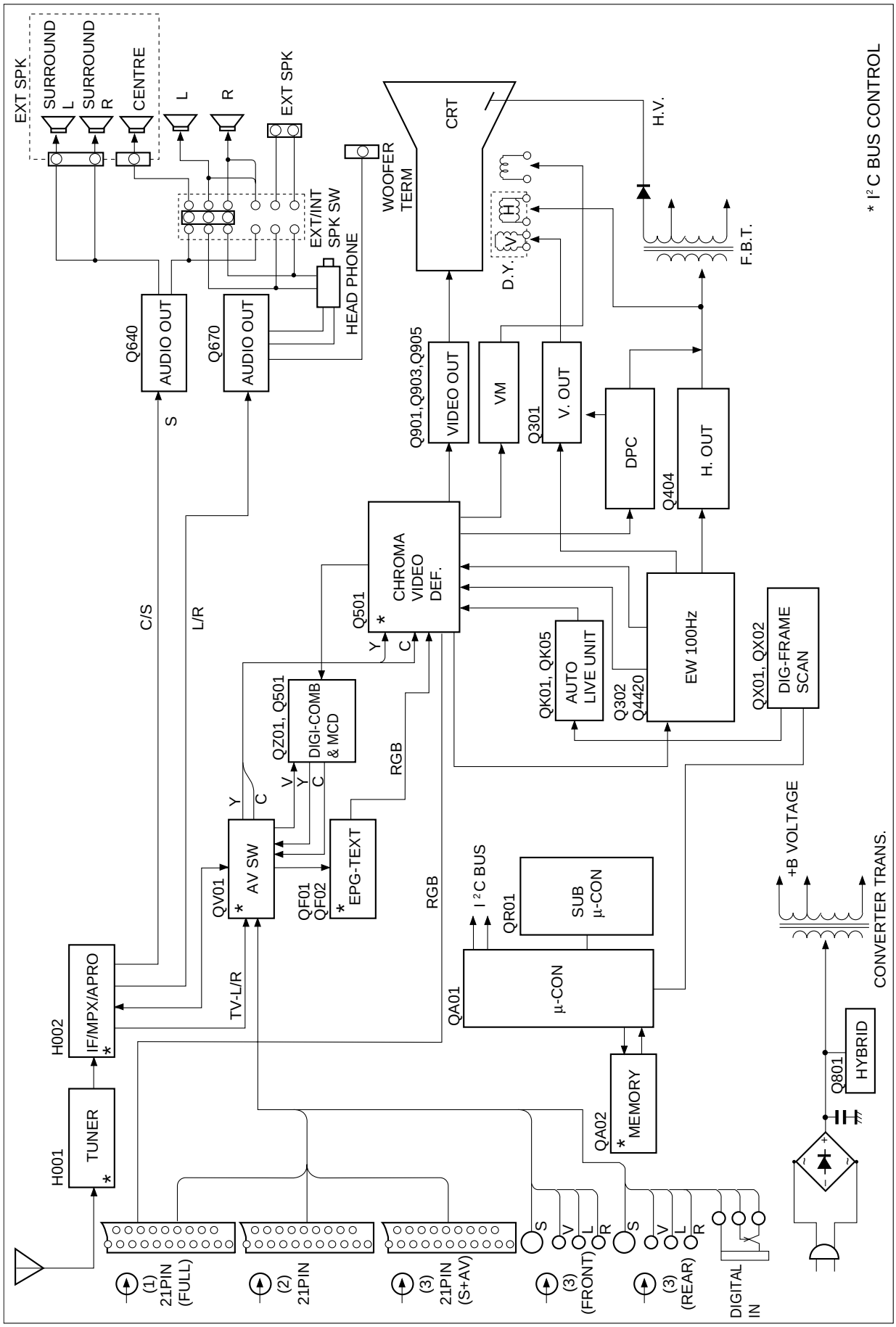
Rear terminals



Remote Controller



CIRCUIT BLOCK DIAGRAM



CHASSIS AND CABINET REPLACEMENT PARTS LIST

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 3 OF THIS MANUAL.

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE. Do not degrade the safety of the receiver through improper servicing.

NOTICE:

- *The part number must be used when ordering parts, in order to assist in processing, be sure to include the Model number and Description.*
- *The PC board assembly with ∗ mark is no longer available after the end of the production.*

Models : 32ZD09G, 32ZD09B

Capacitors	CD	:	Ceramic Disk	PF	:	Plastic Film	EL	: Electrolytic
Resistors	CF	:	Carbon Film	CC	:	Carbon Composition	MF	: Metal Film
	OMF	:	Oxide Metal Film	VR	:	Variable Resistor	FR	: Fusible Resistor

(All CD and PF capacitors are ±5%, 50V and all resistors, ±5%, 1/6W unless otherwise noted.)

Location No.	Part No.	Description
CAPACITORS		
C102	24763221	EL, 220μF, ±20%, 16V
C105	24212102	CD, 1000pF, ±10%
C106	24797100	EL, 10μF, ±20%, 50V
C108	24794221	EL, 220μF, ±20%, 16V
C109	24232103	CD, 0.01μF, +80%, -20%
C110	24797479	EL, 4.7μF, ±20%, 50V (32ZD09G)
C110	24797229	EL, 2.2μF, ±20%, 50V (32ZD09B)
C111	24797220	EL, 22μF, ±20%, 50V (32ZD09G)
C111	24797229	EL, 2.2μF, ±20%, 50V (32ZD09B)
C115	24232103	CD, 0.01μF, +80%, -20%
C201	24503041	PF, 0.1μF, 63V
C202	24232103	CD, 0.01μF, +80%, -20%
C203	24503041	PF, 0.1μF, 63V
C204	24797010	EL, 1μF, ±20%, 50V
C205	24797229	EL, 2.2μF, ±20%, 50V
C206	24797220	EL, 22μF, ±20%, 50V
C214	24503047	PF, 0.1μF, 63V
C215	24436101	CD, 100pF
C219	24436100	CD, 10pF, ±0.25pF
C220	24436100	CD, 10pF, ±0.25pF
C221	24436100	CD, 10pF, ±0.25pF
C229	24092398	CD, 0.1μF, +80%, -20%, 25V
C230	24232103	CD, 0.01μF, +80%, -20%
C232	24092398	CD, 0.1μF, +80%, -20%, 25V
C261	24794101	EL, 100μF, ±20%, 16V
C262	24232103	CD, 0.01μF, +80%, -20%
C263	24794470	EL, 47μF, ±20%, 16V
C264	24794100	EL, 10μF, ±20%, 16V
C302	24214471	CD, 470pF, ±10%, 500V
C303	24214471	CD, 470pF, ±10%, 500V
C305	24795222	EL, 2200μF, ±20%, 25V
C308	24797221	EL, 220μF, ±20%, 50V
C310	24795222	EL, 2200μF, ±20%, 25V
C313	24082057	PF, 0.22μF, 100V
C314	24793101	EL, 100μF, ±20%, 10V
C315	24212222	CD, 2200pF, ±10%

Location No.	Part No.	Description
C315	24797478	EL, 0.47μF, ±20%, 50V
C316	24795221	EL, 220μF, ±20%, 25V
C318	24794471	EL, 470μF, ±20%, 16V
C320	24795221	EL, 220μF, ±20%, 25V
C321	24503045	PF, 0.1μF, 63V
C322	24617915	EL, 1μF, ±10%, 50V
C323	24503049	PF, 0.1μF, 63V
C325	24590223	PF, 0.022μF
C326	24797010	EL, 1μF, ±20%, 50V
C327	24794471	EL, 470μF, ±20%, 16V
C329	24503045	PF, 0.1μF, 63V
C332	24212102	CD, 1000pF, ±10%
C341	24503049	PF, 0.1μF, 63V
C366	24082049	PF, 0.047μF, 100V
C370	24794100	EL, 10μF, ±20%, 16V
C371	24797100	EL, 10μF, ±20%, 50V
C372	24797470	EL, 47μF, ±20%, 50V
C373	24797470	EL, 47μF, ±20%, 50V
C401	24232103	CD, 0.01μF, +80%, -20%
C403	24590223	PF, 0.022μF
C404	24797229	EL, 2.2μF, ±20%, 50V
C410	24092341	CD, 470pF, ±10%, 2kV
C413	24214332	CD, 3300pF, ±10%, 500V
C416	24668101	EL, 100μF, ±20%, 35V
C417	24214391	CD, 390pF, ±10%, 500V
C419	24212102	CD, 1000pF, ±10%
C420	24794101	EL, 100μF, ±20%, 16V
C421	24503041	PF, 0.1μF, 63V
C423	24829393	PF, 0.039μF, 400V
C424	24794101	EL, 100μF, ±20%, 16V
C425	24794101	EL, 100μF, ±20%, 16V
C430	24232103	CD, 0.01μF, +80%, -20%
C430	24820392	PF, 0.0036μF, 630V
C431	24232103	CD, 0.01μF, +80%, -20%
C431	24794101	EL, 100μF, ±20%, 16V
C440	24082943	PF, 3600pF, ±3%, 1500V
C442	24082637	PF, 0.1μF, 400V
C443	24829183	PF, 0.018μF, 400V
C444	24082606	PF, 3900pF, ±3%, 1800V
C445	24828473	PF, 0.047μF, 200V
C446	24679330	EL, 33μF, ±20%, 250V

Location No.	Part No.	Description
C447	24829153	PF, 0.015μF, 400V
C448	24640908	EL, 33μF, ±20%, 160V
C460	24073092	EL, 330μF, ±20%, 50V
C462	24794222	EL, 2200μF, ±20%, 16V
C463	24212392	CD, 3900pF, ±10%
C464	24640872	EL, 10μF, ±20%, 100V
C466	24082409	PF, 4300pF, ±3%, 1250V
C470	24794470	EL, 47μF, ±20%, 16V
C471	24503037	PF, 0.047μF, 63V
C472	24503049	PF, 0.1μF, 63V
C473	24669010	EL, 1μF, ±20%, 50V
C475	24095887	PF, 0.01μF, ±3%, 630V
C476	24794220	EL, 22μF, ±20%, 16V
C479	24214471	CD, 470pF, ±10%, 500V
C481	24085988	EL, 1.0μF, ±20%, 50V, Non-Polar
C482	24212152	CD, 1500pF, ±10%
C495	24092343	CD, 680pF, ±10%, 2kV
C496	24092343	CD, 680pF, ±10%, 2kV
C501	24092293	Chip, 0.1μF, +80%, -20%, 25V
C502	24092293	Chip, 0.1μF, +80%, -20%, 25V
C502	24232103	CD, 0.01μF, +80%, -20%
C503	24794221	EL, 220μF, ±20%, 16V
C503	24794470	EL, 47μF, ±20%, 16V
C504	24814103	Chip, 0.01μF, +80%, -20%
C505	24794470	EL, 47μF, ±20%, 16V
C506	24814103	Chip, 0.01μF, +80%, -20%
C507	24092293	Chip, 0.1μF, +80%, -20%, 25V
C508	24092293	Chip, 0.1μF, +80%, -20%, 25V
C508	24797010	EL, 1μF, ±20%, 50V
C509	24092293	Chip, 0.1μF, +80%, -20%, 25V
C509	24794101	EL, 100μF, ±20%, 16V
C510	24794101	EL, 100μF, ±20%, 16V
C510	24797479	EL, 4.7μF, ±20%, 50V
C511	24092293	Chip, 0.1μF, +80%, -20%, 25V
C511	24232103	CD, 0.01μF, +80%, -20%
C512	24092293	Chip, 0.1μF, +80%, -20%, 25V
C513	24092293	Chip, 0.1μF, +80%, -20%, 25V
C513	24232103	CD, 0.01μF, +80%, -20%
C514	24503041	PF, 0.1μF, 63V
C514	24794470	EL, 47μF, ±20%, 16V
C515	24503041	PF, 0.1μF, 63V
C515	24814103	Chip, 0.01μF, +80%, -20%
C516	24774100	Chip, 10pF, ±0.5pF, CH
C517	24797478	EL, 0.47μF, ±20%, 50V
C518	24436101	CD, 100pF
C518	24814103	Chip, 0.01μF, +80%, -20%
C519	24092293	Chip, 0.1μF, +80%, -20%, 25V
C520	24212102	CD, 1000pF, ±10%
C520	24797229	EL, 2.2μF, ±20%, 50V
C521	24212102	CD, 1000pF, ±10%
C521	24567223	PF, 0.022μF
C522	24814103	Chip, 0.01μF, +80%, -20%
C525	24567104	PF, 0.1μF
C555	24092398	CD, 0.1μF, +80%, -20%, 25V
C556	24797010	EL, 1μF, ±20%, 50V
C608	24762222	EL, 2200μF, ±20%, 10V
C613	24794471	EL, 470μF, ±20%, 16V
C615	24085945	EL, 2.2μF, ±20%, 50V, Non-Polar
C616	24590183	PF, 0.018μF
C617	24590821	PF, 820pF
C618	24503039	PF, 0.068μF, 63V
C619	24794221	EL, 220μF, ±20%, 16V

Location No.	Part No.	Description
C620	24794101	EL, 100μF, ±20%, 16V
C631	24567474	PF, 0.47μF
C631	24797010	EL, 1μF, ±20%, 50V
C632	24797100	EL, 10μF, ±20%, 50V
C632	24797479	EL, 4.7μF, ±20%, 50V
C633	24503042	PF, 0.1μF, 63V
C633	24781102	Chip, 1000pF, SL
C634	24206100	EL, 10μF, ±20%, 50V
C634	24668471	EL, 470μF, ±20%, 35V
C635	24814103	Chip, 0.01μF, +80%, -20%
C636	24206100	EL, 10μF, ±20%, 50V
C637	24765221	EL, 220μF, ±20%, 35V
C638	24814103	Chip, 0.01μF, +80%, -20%
C639	24590103	PF, 0.01μF
C640	24797220	EL, 22μF, ±20%, 50V
C641	24206100	EL, 10μF, ±20%, 50V
C641	24669010	EL, 1μF, ±20%, 50V
C642	24206478	EL, 0.47μF, ±20%, 50V
C643	24781102	Chip, 1000pF, SL
C644	24797010	EL, 1μF, ±20%, 50V
C645	24795470	EL, 47μF, ±20%, 25V
C647	24591102	PF, 1000pF
C648	24591102	PF, 1000pF
C649	24797229	EL, 2.2μF, ±20%, 50V
C650	24668102	EL, 1000μF, ±20%, 35V
C651	24668471	EL, 470μF, ±20%, 35V
C652	24668471	EL, 470μF, ±20%, 35V
C654	24503042	PF, 0.1μF, 63V
C655	24503042	PF, 0.1μF, 63V
C656	24232103	CD, 0.01μF, +80%, -20%
C657	24797229	EL, 2.2μF, ±20%, 50V
C661	24797478	EL, 0.47μF, ±20%, 50V
C662	24797229	EL, 2.2μF, ±20%, 50V
C663	24797229	EL, 2.2μF, ±20%, 50V
C665	24797010	EL, 1μF, ±20%, 50V
C666	24797010	EL, 1μF, ±20%, 50V
C667	24212102	CD, 1000pF, ±10%
C667	24797229	EL, 2.2μF, ±20%, 50V
C668	24212102	CD, 1000pF, ±10%
C668	24590102	PF, 1000pF
C669	24797330	EL, 33μF, ±20%, 50V
C670	24797330	EL, 33μF, ±20%, 50V
C670	24814103	Chip, 0.01μF, +80%, -20%
C671	24797100	EL, 10μF, ±20%, 50V
C671	24814103	Chip, 0.01μF, +80%, -20%
C672	24795470	EL, 47μF, ±20%, 25V
C672	24814103	Chip, 0.01μF, +80%, -20%
C673	24781102	Chip, 1000pF, SL
C673	24795470	EL, 47μF, ±20%, 25V
C674	24781102	Chip, 1000pF, SL
C674	24797100	EL, 10μF, ±20%, 50V
C675	24795470	EL, 47μF, ±20%, 25V
C677	24590102	PF, 1000pF
C677	24814103	Chip, 0.01μF, +80%, -20%
C678	24590102	PF, 1000pF
C678	24781102	Chip, 1000pF, SL
C679	24781102	Chip, 1000pF, SL
C680	24668102	EL, 1000μF, ±20%, 35V
C681	24668102	EL, 1000μF, ±20%, 35V
C681	24781102	Chip, 1000pF, SL
C682	24668102	EL, 1000μF, ±20%, 35V
C682	24781102	Chip, 1000pF, SL
C685	24503042	PF, 0.1μF, 63V
C687	24232103	CD, 0.01μF, +80%, -20%

Location No.	Part No.	Description
C688	24794220	EL, 22μF, ±20%, 16V
C689	24503042	PF, 0.1μF, 63V
C699	24797220	EL, 22μF, ±20%, 50V
C704	24591822	PF, 8200pF
C705	24797229	EL, 2.2μF, ±20%, 50V
C707	24794470	EL, 47μF, ±20%, 16V
C712	24666470	EL, 47μF, ±20%, 16V
C713	24790100	EL, 10μF, ±20%, 160V
C714	24436101	CD, 100pF
C715	24214472	CD, 4700pF, ±10%, 500V
C716	24436101	CD, 100pF
C717	24214472	CD, 4700pF, ±10%, 500V
C718	24794470	EL, 47μF, ±20%, 16V
C719	24435560	CD, 56pF, 500V
C720	24790100	EL, 10μF, ±20%, 160V
C721	24794470	EL, 47μF, ±20%, 16V
⚠C801	24503054	PF, 0.1μF, ±20%, 275V
⚠C802	24503054	PF, 0.1μF, ±20%, 275V
C805	24092281	CD, 4700pF, ±20%, AC250V
C806	24092281	CD, 4700pF, ±20%, AC250V
C808	24667331	EL, 330μF, ±20%, 25V
C810	24086063	EL, 330μF, ±20%, 400V
C810	24763102	EL, 1000μF, ±20%, 16V
⚠C813	24092555	CD, 1000pF, ±20%, AC250V
⚠C814	24092555	CD, 1000pF, ±20%, AC250V
C817	24092339	CD, 330pF, ±10%, 2kV
C818	24095931	PF, 2200pF, 1250V
C819	24676220	EL, 22μF, ±20%, 100V
C821	24214471	CD, 470pF, ±10%, 500V
C822	24503049	PF, 0.1μF, 63V
C823	24214471	CD, 470pF, ±10%, 500V
C829	24590332	PF, 3300pF
C831	24794470	EL, 47μF, ±20%, 16V
C832	24794470	EL, 47μF, ±20%, 16V
C833	24669100	EL, 10μF, ±20%, 50V
C834	24795100	EL, 10μF, ±20%, 25V
C835	24794470	EL, 47μF, ±20%, 16V
C836	24794470	EL, 47μF, ±20%, 16V
C841	24669100	EL, 10μF, ±20%, 50V
C842	24669100	EL, 10μF, ±20%, 50V
C843	24503041	PF, 0.1μF, 63V
C846	24503045	PF, 0.1μF, 63V
C872	24669221	EL, 220μF, ±20%, 50V
C884	24086916	EL, 330μF, ±20%, 160V
C885	24214471	CD, 470pF, ±10%, 500V
C887	24214471	CD, 470pF, ±10%, 500V
C889	24669102	EL, 1000μF, ±20%, 50V
C890	24667222	EL, 2200μF, ±20%, 25V
C891	24667332	EL, 3300μF, ±20%, 25V
C892	24667222	EL, 2200μF, ±20%, 25V
C893	24092337	CD, 220pF, ±10%, 2kV
C894	24669102	EL, 1000μF, ±20%, 50V
C895	24669470	EL, 47μF, ±20%, 50V
C896	24214471	CD, 470pF, ±10%, 500V
C897	24667332	EL, 3300μF, ±20%, 25V
C898	24503045	PF, 0.1μF, 63V
C899	24214471	CD, 470pF, ±10%, 500V
C902	24092345	CD, 1000pF, ±10%, 2kV
C904	24436391	CD, 390pF
C905	24436391	CD, 390pF
C907	24436391	CD, 390pF
C909	24679330	EL, 33μF, ±20%, 250V
C910	24797478	EL, 0.47μF, ±20%, 50V
C911	24203100	EL, 10μF, ±20%, 16V

Location No.	Part No.	Description
C912	24794102	EL, 1000μF, ±20%, 16V
C913	24794101	EL, 100μF, ±20%, 16V
C914	24212103	CD, 0.01μF, ±10%
C915	24092398	CD, 0.1μF, +80%, -20%, 25V
C920	24503041	PF, 0.1μF, 63V
C921	24503041	PF, 0.1μF, 63V
C923	24794470	EL, 47μF, ±20%, 16V
C924	24666470	EL, 47μF, ±20%, 16V
C925	24794470	EL, 47μF, ±20%, 16V
C930	24214101	CD, 100pF, ±10%, 500V
C931	24214101	CD, 100pF, ±10%, 500V
C940	24436390	CD, 39pF
C4376	24590103	PF, 0.01μF
C4405	24590103	PF, 0.01μF
C4408	24590103	PF, 0.01μF
C4418	24590103	PF, 0.01μF
C4425	24797010	EL, 1μF, ±20%, 50V
C4426	24794101	EL, 100μF, ±20%, 16V
C4447	24590103	PF, 0.01μF
C4461	24503041	PF, 0.1μF, 63V
C4490	24829623	PF, 0.063μF, 400V
C4491	24082637	PF, 0.1μF, 400V
CA03	24436180	CD, 18pF (32ZD09G)
CA04	24436180	CD, 18pF (32ZD09G)
CA09	24474101	CD, 100pF, ±10%
CA10	24474101	CD, 100pF, ±10%
CA12	24212101	CD, 100pF, ±10%
CA13	24436101	CD, 100pF
CA15	24474101	CD, 100pF, ±10%
CA16	24474101	CD, 100pF, ±10%
CA17	24474101	CD, 100pF, ±10%
CA33	24232103	CD, 0.01μF, +80%, -20%
CA42	24794100	EL, 10μF, ±20%, 16V
CA43	24232103	CD, 0.01μF, +80%, -20%
CA44	24232103	CD, 0.01μF, +80%, -20%
CA68	24794100	EL, 10μF, ±20%, 16V
CA69	24232103	CD, 0.01μF, +80%, -20%
CA80	24794470	EL, 47μF, ±20%, 16V (32ZD09G)
CA81	24232103	CD, 0.01μF, +80%, -20% (32ZD09G)
CA83	24085981	EL, 10μF, ±20%, 16V, Non-Polar (32ZD09G)
CB01	24794470	EL, 47μF, ±20%, 16V
CB02	24567104	PF, 0.1μF
CB90	24232103	CD, 0.01μF, +80%, -20%
CC09	24814103	Chip, 0.01μF, +80%, -20%
CC10	24814103	Chip, 0.01μF, +80%, -20%
CC15	24232103	CD, 0.01μF, +80%, -20%
CC16	24474102	CD, 1000pF, ±10%
CC20	24781220	Chip, 22pF, SL
CC26	24232103	CD, 0.01μF, +80%, -20%
CC27	24232103	CD, 0.01μF, +80%, -20%
CC28	24781102	Chip, 1000pF, SL
CC45	24774050	Chip, 5pF, ±0.25pF, CH (32ZD09B)
CC45	24781102	Chip, 1000pF, SL
CC46	24774050	Chip, 5pF, ±0.25pF, CH (32ZD09B)
CC46	24781102	Chip, 1000pF, SL
CC89	24781151	Chip, 150pF, SL
CD85	24092293	Chip, 0.1μF, +80%, -20%, 25V
CD86	24793221	EL, 220μF, ±20%, 10V
CD87	24815222	Chip, 0.0022μF, ±10%

Location No.	Part No.	Description
CD88	24794100	EL, 10μF, ±20%, 16V
CD89	24092293	Chip, 0.1μF, +80%, -20%, 25V
CF02	24774220	Chip, 22pF, CH (32ZD09G)
CF03	24774220	Chip, 22pF, CH (32ZD09G)
CF03	24567104	PF, 0.1μF (32ZD09B)
CF04	24766101	EL, 100μF, ±20%, 50V (32ZD09B)
CF05	24092293	Chip, 0.1μF, +80%, -20%, 25V (32ZD09G)
CF05	24766101	EL, 100μF, ±20%, 50V (32ZD09B)
CF06	24092293	Chip, 0.1μF, +80%, -20%, 25V (32ZD09G)
CF06	24774220	Chip, 22pF, CH (32ZD09B)
CF07	24092293	Chip, 0.1μF, +80%, -20%, 25V (32ZD09G)
CF07	24774220	Chip, 22pF, CH (32ZD09B)
CF08	24092293	Chip, 0.1μF, +80%, -20%, 25V (32ZD09G)
CF08	24567104	PF, 0.1μF (32ZD09B)
CF09	24567224	PF, 0.22μF (32ZD09G)
CF09	24567104	PF, 0.1μF (32ZD09B)
CF10	24092293	Chip, 0.1μF, +80%, -20%, 25V (32ZD09G)
CF10	24206100	EL, 10μF, ±20%, 50V (32ZD09B)
CF11	24202101	EL, 100μF, ±20%, 10V (32ZD09G)
CF11	24567104	PF, 0.1μF (32ZD09B)
CF12	24202101	EL, 100μF, ±20%, 10V (32ZD09G)
CF12	24814103	Chip, 0.01μF, +80%, -20% (32ZD09B)
CF13	24202101	EL, 100μF, ±20%, 10V (32ZD09G)
CF14	24202101	EL, 100μF, ±20%, 10V (32ZD09G)
CF14	24814103	Chip, 0.01μF, +80%, -20% (32ZD09B)
CF15	24092293	Chip, 0.1μF, +80%, -20%, 25V (32ZD09G)
CF16	24567224	PF, 0.22μF (32ZD09B)
CF17	24781101	Chip, 100pF, SL (32ZD09G)
CF18	24092293	Chip, 0.1μF, +80%, -20%, 25V (32ZD09G)
CF18	24794101	EL, 100μF, ±20%, 16V (32ZD09B)
CF19	24092293	Chip, 0.1μF, +80%, -20%, 25V (32ZD09G)
CF19	24814103	Chip, 0.01μF, +80%, -20% (32ZD09B)
CF20	24092293	Chip, 0.1μF, +80%, -20%, 25V (32ZD09G)
CF20	24766010	EL, 1μF, ±20%, 50V (32ZD09B)
CF21	24092293	Chip, 0.1μF, +80%, -20%, 25V (32ZD09G)
CF22	24092293	Chip, 0.1μF, +80%, -20%, 25V (32ZD09G)
CF24	24092293	Chip, 0.1μF, +80%, -20%, 25V (32ZD09G)
CF25	24092293	Chip, 0.1μF, +80%, -20%, 25V (32ZD09G)
CF26	24774330	Chip, 33pF, CH (32ZD09G)

Location No.	Part No.	Description
CF31	24203100	EL, 10μF, ±20%, 16V (32ZD09G)
CF32	24092293	Chip, 0.1μF, +80%, -20%, 25V (32ZD09G)
CF33	24202101	EL, 100μF, ±20%, 10V (32ZD09G)
CF41	24774060	CD, 6pF, ±0.5pF, CH (32ZD09G)
CF42	24774060	CD, 6pF, ±0.5pF, CH (32ZD09G)
CF43	24092293	Chip, 0.1μF, +80%, -20%, 25V (32ZD09G)
CF60	24092293	Chip, 0.1μF, +80%, -20%, 25V (32ZD09G)
CF61	24092293	Chip, 0.1μF, +80%, -20%, 25V (32ZD09G)
CG01	24082926	PF, 0.1μF, ±20%, AC275V (32ZD09G)
CG06	24073101	EL, 47μF, ±20%, 400V (32ZD09G)
CG07	24503049	PF, 0.1μF, 63V (32ZD09G)
CG08	24214471	CD, 470pF, ±10%, 500V (32ZD09G)
CG10	24667331	EL, 330μF, ±20%, 25V (32ZD09G)
CG11	24667470	EL, 47μF, ±20%, 25V (32ZD09G)
CG12	24212681	CD, 680pF, ±10% (32ZD09G)
CG13	24092333	CD, 100pF, ±10%, 2kV (32ZD09G)
CG20	24676470	EL, 47μF, ±20%, 100V (32ZD09G)
CG27	24666222	EL, 2200μF, ±20%, 16V (32ZD09G)
CG34	24794101	EL, 100μF, ±20%, 16V (32ZD09G)
CG35	24665470	EL, 47μF, ±20%, 10V (32ZD09G)
CG62	24214471	CD, 470pF, ±10%, 500V (32ZD09G)
CG65	24214471	CD, 470pF, ±10%, 500V (32ZD09G)
CR01	24797010	EL, 1μF, ±20%, 50V
CR02	24232103	CD, 0.01μF, +80%, -20%
CR09	24503041	PF, 0.1μF, 63V
CR10	24794470	EL, 47μF, ±20%, 16V
CR11	24503041	PF, 0.1μF, 63V
CR12	24503041	PF, 0.1μF, 63V
CR13	24503041	PF, 0.1μF, 63V
CR14	24503041	PF, 0.1μF, 63V
CR18	24503041	PF, 0.1μF, 63V
CR19	24503041	PF, 0.1μF, 63V
CR20	24503041	PF, 0.1μF, 63V
CS01	24797229	EL, 2.2μF, ±20%, 50V
CS02	24797229	EL, 2.2μF, ±20%, 50V
CS03	24797229	EL, 2.2μF, ±20%, 50V
CS04	24797229	EL, 2.2μF, ±20%, 50V
CS05	24206229	EL, 2.2μF, ±20%, 50V
CS06	24206229	EL, 2.2μF, ±20%, 50V
CS07	24797229	EL, 2.2μF, ±20%, 50V
CS08	24797229	EL, 2.2μF, ±20%, 50V
CS09	24797229	EL, 2.2μF, ±20%, 50V
CS10	24797229	EL, 2.2μF, ±20%, 50V
CS12	24781102	Chip, 1000pF, SL

Location No.	Part No.	Description
CS13	24781102	Chip, 1000pF, SL
CS14	24797100	EL, 10μF, ±20%, 50V
CS15	24797100	EL, 10μF, ±20%, 50V
CS17	24794100	EL, 10μF, ±20%, 16V
CS18	24794100	EL, 10μF, ±20%, 16V
CS19	24797478	EL, 0.47μF, ±20%, 50V
CS22	24794100	EL, 10μF, ±20%, 16V
CS23	24794100	EL, 10μF, ±20%, 16V
CV02	24092293	Chip, 0.1μF, +80%, -20%, 25V
CV03	24092293	Chip, 0.1μF, +80%, -20%, 25V
CV04	24092293	Chip, 0.1μF, +80%, -20%, 25V
CV05	24814103	Chip, 0.01μF, +80%, -20%
CV06	24092293	Chip, 0.1μF, +80%, -20%, 25V
CV08	24794101	EL, 100μF, ±20%, 16V
CV09	24815473	Chip, 0.047μF, ±10%
CV10	24794220	EL, 22μF, ±20%, 16V
CV12	24092178	Chip, 0.1μF, ±10%, 25V
CV14	24781102	Chip, 1000pF, SL
CV15	24781102	Chip, 1000pF, SL
CV16	24781102	Chip, 1000pF, SL
CV17	24781102	Chip, 1000pF, SL
CV18	24781102	Chip, 1000pF, SL
CV19	24781102	Chip, 1000pF, SL
CV23	24203101	EL, 10μF, ±20%, 16V
CV24	24814103	Chip, 0.01μF, +80%, -20%
CV35	24814103	Chip, 0.01μF, +80%, -20%
CV39	24794101	EL, 100μF, ±20%, 16V
CV40	24814103	Chip, 0.01μF, +80%, -20%
CV46	24212332	CD, 3300pF, ±10%
CV47	24212332	CD, 3300pF, ±10%
CV48	24212102	CD, 1000pF, ±10%
CV65	24203101	EL, 10μF, ±20%, 16V
CV66	24794101	EL, 100μF, ±20%, 16V
CX101	24794470	EL, 47μF, ±20%, 16V
CX102	24085981	EL, 10μF, ±20%, 16V, Non-Polar
CX104	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX105	24774330	Chip, 33pF, CH
CX106	24774270	Chip, 270pF, CH
CX107	24774101	Chip, 100pF, CH
CX108	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX111	24092621	Chip, 1μF, ±10%, 10V
CX112	24794100	EL, 10μF, ±20%, 16V
CX113	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX114	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX115	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX116	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX117	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX118	24794100	EL, 10μF, ±20%, 16V
CX119	24794100	EL, 10μF, ±20%, 16V
CX120	24794100	EL, 10μF, ±20%, 16V
CX121	24774470	Chip, 47pF, CH
CX122	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX123	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX124	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX125	24794100	EL, 10μF, ±20%, 16V
CX126	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX128	24092441	Chip, 1μF, +80%, -20%, 16V
CX129	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX130	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX143	24085981	EL, 10μF, ±20%, 16V, Non-Polar
CX145	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX148	24774101	Chip, 100pF, CH

Location No.	Part No.	Description
CX149	24774470	Chip, 47pF, CH
CX150	24774271	Chip, 270pF, CH
CX151	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX152	24794100	EL, 10μF, ±20%, 16V
CX155	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX156	24794100	EL, 10μF, ±20%, 16V
CX157	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX159	24092441	Chip, 1μF, +80%, -20%, 16V
CX160	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX163	24085981	EL, 10μF, ±20%, 16V, Non-Polar
CX165	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX168	24774101	Chip, 100pF, CH
CX169	24774470	Chip, 47pF, CH
CX170	24774271	Chip, 270pF, CH
CX171	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX172	24794100	EL, 10μF, ±20%, 16V
CX176	24794100	EL, 10μF, ±20%, 16V
CX177	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX179	24092441	Chip, 1μF, +80%, -20%, 16V
CX180	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX184	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX185	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX186	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX187	24794100	EL, 10μF, ±20%, 16V
CX188	24794100	EL, 10μF, ±20%, 16V
CX189	24794100	EL, 10μF, ±20%, 16V
CX190	24774330	Chip, 33pF, CH
CX191	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX192	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX193	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX201	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX202	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX204	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX205	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX206	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX208	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX209	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX211	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX212	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX214	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX215	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX216	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX218	24794221	EL, 220μF, ±20%, 16V
CX221	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX222	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX224	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX225	24794220	EL, 22μF, ±20%, 16V
CX226	24794101	EL, 100μF, ±20%, 16V
CX227	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX228	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX230	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX231	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX232	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX234	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX235	24797229	EL, 2.2μF, ±20%, 50V
CX236	24794101	EL, 100μF, ±20%, 16V
CX237	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX238	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX239	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX240	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX241	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX243	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX244	24092293	Chip, 0.1μF, +80%, -20%, 25V

Location No.	Part No.	Description
CX245	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX246	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX247	24872331	Chip, 330 ohm, 1/16W
CX249	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX250	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX261	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX262	24774470	Chip, 47pF, CH
CX271	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX301	24794100	EL, 10μF, ±20%, 16V
CX302	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX303	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX305	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX306	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX308	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX309	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX310	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX321	24794100	EL, 10μF, ±20%, 16V
CX323	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX326	24774680	Chip, 68pF, CH
CX328	24774330	Chip, 33pF, CH
CX330	24794470	EL, 47μF, ±20%, 16V
CX341	24794100	EL, 10μF, ±20%, 16V
CX343	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX346	24774181	Chip, 180pF, CH
CX348	24774181	Chip, 180pF, CH
CX361	24794100	EL, 10μF, ±20%, 16V
CX363	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX366	24774181	Chip, 180pF, CH
CX368	24774181	Chip, 180pF, CH
CX401	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX402	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX403	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX404	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX405	24794471	EL, 470μF, ±20%, 16V
CX406	24794471	EL, 470μF, ±20%, 16V
CX407	24774220	Chip, 22pF, CH
CX408	24774220	Chip, 22pF, CH
CX409	24774220	Chip, 22pF, CH
CX410	24774220	Chip, 22pF, CH
CX411	24774220	Chip, 22pF, CH
CX412	24774220	Chip, 22pF, CH
CX421	24774221	Chip, 220pF, CH
CX422	24774221	Chip, 220pF, CH
CX423	24774221	Chip, 220pF, CH
CX424	24774221	Chip, 220pF, CH
CX425	24774221	Chip, 220pF, CH
CX427	24774221	Chip, 220pF, CH
CX428	24774330	Chip, 33pF, CH
CX429	24774330	Chip, 33pF, CH
CX430	24774221	Chip, 220pF, CH
CX431	24073020	EL, 1000μF, ±20%, 10V
CX432	24092294	Chip, 0.33μF, +80%, -20%, 16V
CX433	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX434	24092441	Chip, 1μF, +80%, -20%, 16V
CX435	24092293	Chip, 0.1μF, +80%, -20%, 25V
CX436	24073035	EL, 22μF, ±20%, 16V
CZ01	24092293	Chip, 0.1μF, +80%, -20%, 25V
CZ02	24814103	Chip, 0.01μF, +80%, -20%
CZ03	24092442	Chip, 0.47μF, +80%, -20%, 16V
CZ05	24814103	Chip, 0.01μF, +80%, -20%
CZ07	24092293	Chip, 0.1μF, +80%, -20%, 25V
CZ09	24781220	Chip, 22pF, SL

Location No.	Part No.	Description
CZ10	24781100	Chip, 10pF, ±0.5pF%, SL
CZ11	24781220	Chip, 22pF, SL
CZ12	24814103	Chip, 0.01μF, +80%, -20%
CZ13	24814103	Chip, 0.01μF, +80%, -20%
CZ14	24794100	EL, 10μF, ±20%, 16V
CZ17	24814103	Chip, 0.01μF, +80%, -20%
CZ19	24781181	Chip, 180pF, SL
CZ20	24814103	Chip, 0.01μF, +80%, -20%
CZ21	24781122	Chip, 1200pF, SL
CZ22	24794100	EL, 10μF, ±20%, 16V
CZ23	24814103	Chip, 0.01μF, +80%, -20%
CZ24	24814103	Chip, 0.01μF, +80%, -20%
CZ25	24794100	EL, 10μF, ±20%, 16V
CZ26	24814103	Chip, 0.01μF, +80%, -20%
CZ28	24814103	Chip, 0.01μF, +80%, -20%
CZ29	24814103	Chip, 0.01μF, +80%, -20%
CZ30	24794100	EL, 10μF, ±20%, 16V
CZ31	24092293	Chip, 0.1μF, +80%, -20%, 25V
CZ32	24781101	Chip, 100pF, SL
CZ33	24781270	Chip, 27pF, SL
CZ34	24781101	Chip, 100pF, SL
CZ35	24781270	Chip, 27pF, SL
CZ37	24814103	Chip, 0.01μF, +80%, -20%
CZ45	24781100	Chip, 10pF, ±0.5pF%, SL

RESISTORS

R101	24366101	CF, 100 ohm
R101	24553223	OMF, 22k ohm, 1W (32ZD09B)
R102	24366103	CF, 10k ohm
R204	24366104	CF, 100k ohm
R205	24366101	CF, 100 ohm
R206	24366471	CF, 470 ohm
R208	24366103	CF, 10k ohm
R209	24366103	CF, 10k ohm
R210	24366101	CF, 100 ohm
R211	24366101	CF, 100 ohm
R211	24366473	CF, 47k ohm
R212	24366101	CF, 100 ohm
R213	24366681	CF, 680 ohm
R214	24366681	CF, 680 ohm
R215	24366681	CF, 680 ohm
R216	24366103	CF, 10k ohm
R217	24366392	CF, 3900 ohm
R218	24366101	CF, 100 ohm
R219	24366101	CF, 100 ohm
R219	24366473	CF, 47k ohm
R220	24366101	CF, 100 ohm
R223	24366472	CF, 4700 ohm
R227	24366223	CF, 22k ohm
R229	24366472	CF, 4700 ohm
R231	24366222	CF, 2200 ohm
R235	24366222	CF, 2200 ohm
R236	24366101	CF, 100 ohm
R237	24366101	CF, 100 ohm
R238	24366562	CF, 5600 ohm
R260	24366222	CF, 2200 ohm
R261	24366681	CF, 680 ohm
R262	24366102	CF, 1k ohm
R263	24366102	CF, 1k ohm
R264	24366103	CF, 10k ohm
R265	24366392	CF, 3900 ohm
R266	24366332	CF, 3300 ohm
R267	24366101	CF, 100 ohm
R269	24366391	CF, 390 ohm

Location No.	Part No.	Description
R270	24366102	CF, 1k ohm
R271	24366472	CF, 4700 ohm
R271	24872103	Chip, 10k ohm, 1/16W
R272	24872103	Chip, 10k ohm, 1/16W
R303	24321109	MF, 1 ohm, 1/2W
R307	24366101	CF, 100 ohm
R310	24366511	CF, 510 ohm
R311	24366911	CF, 910 ohm
R312	24366153	CF, 15k ohm
R313	24552132	OMF, 1300 ohm, 1/2W
R314	24366102	CF, 1k ohm
R315	24366332	CF, 3300 ohm
R315	24366474	CF, 470k ohm
R316	24366394	CF, 390k ohm
R317	24366511	CF, 510 ohm
R318	24366101	CF, 100 ohm
R319	24366101	CF, 100 ohm
R320	24366155	CF, 1.5M ohm
R321	24552392	OMF, 3900 ohm, 1/2W
R322	24366102	CF, 1k ohm
R323	24366103	CF, 10k ohm
R324	24366681	CF, 680 ohm
R325	24366103	CF, 10k ohm
R326	24339109	MF, 1 ohm, 2W
R327	24339109	MF, 1 ohm, 2W
R328	24366102	CF, 1k ohm
R330	24366103	CF, 10k ohm
R331	24366104	CF, 100k ohm
R333	24552912	OMF, 9100 ohm, 1/2W
R335	24366153	CF, 15k ohm
R336	24383681	OMF, 680 ohm, 2W
R338	24003898	MF, 3300 ohm, 1/4W
R341	24366822	CF, 8200 ohm
R343	24366273	CF, 27k ohm
R353	24366471	CF, 470 ohm
R360	24366223	CF, 22k ohm
R364	24366223	CF, 22k ohm
R365	24366223	CF, 22k ohm
R366	24366472	CF, 4700 ohm
R370	24366822	CF, 8200 ohm
R371	24366103	CF, 10k ohm
R373	24366103	CF, 10k ohm
R374	24366472	CF, 4700 ohm
R375	24552150	OMF, 15 ohm, 1/2W
R400	24946561	CC, 560 ohm, 1/2W
R402	24366102	CF, 1k ohm
R403	24366302	CF, 3k ohm
R405	24553682	OMF, 6800 ohm, 1W
R407	24366103	CF, 10k ohm
R411	24366180	CF, 18 ohm
R414	24531560	FR, 56 ohm, 1/2W
R415	24366101	CF, 100 ohm
R415	24553561	OMF, 560 ohm, 1W
R416	24381563	OMF, 56k ohm, 1/2W
R417	24510101	Cement, 100 ohm, 5W
R424	24366152	CF, 1500 ohm
R425	24366182	CF, 1800 ohm
R426	24366751	CF, 750 ohm
R427	24366392	CF, 3900 ohm
R428	24366561	CF, 560 ohm
R429	24552560	OMF, 56 ohm, 1/2W
R431	24366103	CF, 10k ohm (32ZD09B)
R432	24366473	CF, 47k ohm (32ZD09B)
R433	24366681	CF, 680 ohm

Location No.	Part No.	Description
R434	24366472	CF, 4700 ohm
R435	24366184	CF, 180k ohm
R441	24383561	OMF, 560 ohm, 2W
R445	24321129	MF, 1.2 ohm, 1/2W
R460	24552332	OMF, 3300 ohm, 1/2W
R461	24381182	OMF, 1800 ohm, 1/2W
R462	24366333	CF, 33k ohm
R463	24323229	MF, 2.2 ohm, 2W
R464	24366273	CF, 27k ohm
R465	24366101	CF, 100 ohm
R466	24366272	CF, 2700 ohm
R467	24327224	MF, 220k ohm, ±1%, 1/4W
R469	24000211	FR, 15 ohm, 1/2W
R470	24339568	MF, 0.56 ohm, 2W
R471	24531271	FR, 270 ohm, 1/2W
R472	24366101	CF, 100 ohm
R473	24366183	CF, 18k ohm
R474	24376393	CF, 39k ohm, 1/2W
R476	24366471	CF, 470 ohm
R477	24366102	CF, 1k ohm
R478	24381333	OMF, 33k ohm, 1/2W
R479	24531680	FR, 68 ohm, 1/2W
R480	24552222	OMF, 2200 ohm, 1/2W
R481	24366183	CF, 18k ohm
R482	24366183	CF, 18k ohm
R483	24366223	CF, 22k ohm
R487	24366474	CF, 470k ohm
R488	24366154	CF, 150k ohm
R489	24366102	CF, 1k ohm
R490	24366101	CF, 100 ohm
R491	24366101	CF, 100 ohm
R492	24366472	CF, 4700 ohm
R499	24366101	CF, 100 ohm
R501	24872682	Chip, 6800 ohm, 1/16W
R502	24366101	CF, 100 ohm
R502	24872272	Chip, 2700 ohm, 1/16W
R503	24366101	CF, 100 ohm
R504	24872101	Chip, 100 ohm, 1/16W
R505	24872101	Chip, 100 ohm, 1/16W
R506	24872273	Chip, 27k ohm, 1/16W
R507	24872392	Chip, 3900 ohm, 1/16W
R512	24872102	Chip, 1k ohm, 1/16W
R513	24366472	CF, 4700 ohm
R513	24872102	Chip, 1k ohm, 1/16W
R514	24366101	CF, 100 ohm
R514	24872102	Chip, 1k ohm, 1/16W
R515	24872102	Chip, 1k ohm, 1/16W
R516	24872102	Chip, 1k ohm, 1/16W
R517	24872102	Chip, 1k ohm, 1/16W
R518	24366102	CF, 1k ohm
R518	24366681	CF, 680 ohm
R519	24872472	Chip, 4700 ohm, 1/16W
R520	24872103	Chip, 10k ohm, 1/16W
R521	24872103	Chip, 10k ohm, 1/16W
R609	24366563	CF, 56k ohm
R610	24366103	CF, 10k ohm
R611	24366103	CF, 10k ohm
R612	24366103	CF, 10k ohm
R613	24366224	CF, 220k ohm
R615	24366123	CF, 12k ohm
R616	24366333	CF, 33k ohm
R617	24366472	CF, 4700 ohm
R618	24366223	CF, 22k ohm
R619	24366472	CF, 4700 ohm

Location No.	Part No.	Description
R620	24366153	CF, 15k ohm
R621	24366273	CF, 27k ohm
R622	24366392	CF, 3900 ohm
R623	24366332	CF, 3300 ohm
R624	24366103	CF, 10k ohm
R625	24366103	CF, 10k ohm
R626	24366562	CF, 5600 ohm
R627	24366102	CF, 1k ohm
R628	24366102	CF, 1k ohm
R631	24552122	OMF, 1200 ohm, 1/2W
R632	24872183	Chip, 18k ohm, 1/16W
R633	24872101	Chip, 100 ohm, 1/16W
R634	24366229	CF, 2.2 ohm
R634	24872332	Chip, 3300 ohm, 1/16W
R635	24872222	Chip, 2200 ohm, 1/16W
R636	24872103	Chip, 10k ohm, 1/16W
R637	24366472	CF, 4700 ohm
R637	24872103	Chip, 10k ohm, 1/16W
R638	24872222	Chip, 2200 ohm, 1/16W
R639	24366223	CF, 22k ohm
R639	24872153	Chip, 15k ohm, 1/16W
R640	24366472	CF, 4700 ohm
R640	24872153	Chip, 15k ohm, 1/16W
R641	24366152	CF, 1500 ohm
R641	24872153	Chip, 15k ohm, 1/16W
R642	24366562	CF, 5600 ohm
R642	24872182	Chip, 1800 ohm, 1/16W
R643	24366222	CF, 2200 ohm
R643	24872104	Chip, 100k ohm, 1/16W
R644	24366473	CF, 47k ohm
R644	24872104	Chip, 100k ohm, 1/16W
R645	24366229	CF, 2.2 ohm
R645	24872102	Chip, 1k ohm, 1/16W
R646	24366223	CF, 22k ohm
R646	24872681	Chip, 680 ohm, 1/16W
R647	24872223	Chip, 22k ohm, 1/16W
R648	24366229	CF, 2.2 ohm
R648	24872223	Chip, 22k ohm, 1/16W
R649	24366223	CF, 22k ohm
R661	24510159	Cement, 1.5 ohm, 5W
R661	24552221	OMF, 220 ohm, 1/2W
R662	24366104	CF, 100k ohm
R662	24552221	OMF, 220 ohm, 1/2W
R670	24366472	CF, 4700 ohm
R671	24366102	CF, 1k ohm
R671	24366222	CF, 2200 ohm
R672	24366102	CF, 1k ohm
R672	24366472	CF, 4700 ohm
R673	24366102	CF, 1k ohm
R673	24366222	CF, 2200 ohm
R674	24366102	CF, 1k ohm
R676	24366223	CF, 22k ohm
R676	24872223	Chip, 22k ohm, 1/16W
R677	24366223	CF, 22k ohm
R677	24872223	Chip, 22k ohm, 1/16W
R678	24366562	CF, 5600 ohm
R678	24872223	Chip, 22k ohm, 1/16W
R679	24366562	CF, 5600 ohm
R679	24872223	Chip, 22k ohm, 1/16W
R681	24366104	CF, 100k ohm
R684	24366229	CF, 2.2 ohm
R685	24366229	CF, 2.2 ohm
R687	24366222	CF, 2200 ohm
R688	24366222	CF, 2200 ohm

Location No.	Part No.	Description
R689	24366104	CF, 100k ohm
R692	24872681	Chip, 680 ohm, 1/16W
R693	24872681	Chip, 680 ohm, 1/16W
R702	24552221	OMF, 220 ohm, 1/2W
R712	24366101	CF, 100 ohm
R715	24366223	CF, 22k ohm
R716	24366273	CF, 27k ohm
R717	24366183	CF, 18k ohm
R718	24366681	CF, 680 ohm
R722	24552471	OMF, 470 ohm, 1/2W
R723	24366101	CF, 100 ohm
R724	24366151	CF, 150 ohm
R725	24366821	CF, 820 ohm
R730	24552100	OMF, 10 ohm, 1/2W
R731	24552331	OMF, 330 ohm, 1/2W
R732	24366220	CF, 22 ohm
R733	24366683	CF, 68k ohm
R734	24366220	CF, 22 ohm
R735	24366683	CF, 68k ohm
R736	24366470	CF, 47 ohm
R737	24366681	CF, 680 ohm
R738	24366123	CF, 12k ohm
R739	24366681	CF, 680 ohm
R740	24366470	CF, 47 ohm
R741	24366229	CF, 2.2 ohm
R742	24366229	CF, 2.2 ohm
R743	24554181	OMF, 180 ohm, 2W
R744	24366122	CF, 1200 ohm
R745	24366122	CF, 1200 ohm
⚠ R801	24009954	Metal-Glazed Resistor, 2.2M ohm, 1/2W
R803	24383333	OMF, 33k ohm, 2W
R804	24366334	CF, 330k ohm
R805	24366681	CF, 680 ohm
R807	24366334	CF, 330k ohm
R808	24019484	PTC Thermistor, 4.5 ohm
R809	24366393	CF, 39k ohm
R810	24568159	Cement, 1.5 ohm, 7W
R814	24366682	CF, 6800 ohm
R815	24366332	CF, 3300 ohm
R818	24019460	MF, 0.1 ohm, 2W
R819	24310829	MF, 8.2 ohm, 1/2W
R821	24366101	CF, 100 ohm
R822	24552103	OMF, 10k ohm, 1/2W
R823	24552822	OMF, 8200 ohm, 1/2W
R824	24569689	Cement, 6.8 ohm, 10W
R827	24366681	CF, 680 ohm
R828	24366821	CF, 820 ohm
R829	24321338	MF, 0.33 ohm, 1/2W
R831	24366471	CF, 470 ohm
R832	24366472	CF, 4700 ohm
R833	24366222	CF, 2200 ohm
R834	24366471	CF, 470 ohm
R835	24322229	MF, 2.2 ohm, 1W (32ZD09B)
R841	24531120	FR, 12 ohm, 1/2W (32ZD09B)
R842	24552392	OMF, 3900 ohm, 1/2W (32ZD09B)
R843	24366331	CF, 330 ohm
R846	24366101	CF, 100 ohm
R847	24366472	CF, 4700 ohm (32ZD09B)
R849	24366471	CF, 470 ohm
R850	24366103	CF, 10k ohm
R851	24366102	CF, 1k ohm
R852	24366225	CF, 2.2M ohm

Location No.	Part No.	Description
R865	24366332	CF, 3300 ohm (32ZD09B)
R868	24366472	CF, 4700 ohm (32ZD09B)
R875	24366332	CF, 3300 ohm (32ZD09G)
R876	24366103	CF, 10k ohm (32ZD09G)
R891	24383102	OMF, 1k ohm, 2W (32ZD09G)
⚠ R899	24005015	Metal-Glazed Resistor, 8.2M ohm, 1W
R901	24376561	CF, 560 ohm, 1/2W
R902	24376561	CF, 560 ohm, 1/2W
R903	24376561	CF, 560 ohm, 1/2W
R904	24366472	CF, 4700 ohm
R905	24366150	CF, 15 ohm
R909	24366100	CF, 10 ohm
R912	24366102	CF, 1k ohm
R914	24366471	CF, 470 ohm
R915	24366680	CF, 68 ohm
R916	24366180	CF, 18 ohm
R917	24366471	CF, 470 ohm
R918	24366180	CF, 18 ohm
R919	24366102	CF, 1k ohm
R920	24000883	FR, 3.6 ohm, 1W
R921	24366471	CF, 470 ohm
R922	24366680	CF, 68 ohm
R923	24366272	CF, 2700 ohm
R924	24366180	CF, 18 ohm
R925	24366471	CF, 470 ohm
R926	24366102	CF, 1k ohm
R927	24366102	CF, 1k ohm
R928	24366471	CF, 470 ohm
R929	24366680	CF, 68 ohm
R930	24366180	CF, 18 ohm
R932	24366332	CF, 3300 ohm
R933	24366750	CF, 75 ohm
R934	24366361	CF, 360 ohm
R935	24366102	CF, 1k ohm
R936	24366750	CF, 75 ohm
R937	24366471	CF, 470 ohm
R939	24366680	CF, 68 ohm
R941	24366471	CF, 470 ohm
R942	24366392	CF, 3900 ohm
R943	24366392	CF, 3900 ohm
R944	24366392	CF, 3900 ohm
R945	24366180	CF, 18 ohm
R946	24366180	CF, 18 ohm
R947	24366561	CF, 560 ohm
R948	24366822	CF, 8200 ohm
R949	24366271	CF, 270 ohm
R950	24060356	VR, 20M ohm, 0.6W
R960	24383153	OMF, 15k ohm, 2W
R961	24383153	OMF, 15k ohm, 2W
R962	24383153	OMF, 15k ohm, 2W
R963	24383153	OMF, 15k ohm, 2W
R964	24383153	OMF, 15k ohm, 2W
R965	24383153	OMF, 15k ohm, 2W
R966	24383153	OMF, 15k ohm, 2W
R967	24383153	OMF, 15k ohm, 2W
R968	24383153	OMF, 15k ohm, 2W
R969	24366101	CF, 100 ohm
R970	24366101	CF, 100 ohm
R971	24366101	CF, 100 ohm
R972	24366272	CF, 2700 ohm
R973	24366103	CF, 10k ohm
R974	24366103	CF, 10k ohm
R975	24366103	CF, 10k ohm

Location No.	Part No.	Description
R976	24366272	CF, 2700 ohm
R977	24366561	CF, 560 ohm
R978	24366272	CF, 2700 ohm
R979	24366272	CF, 2700 ohm
R980	24366471	CF, 470 ohm
R981	24366471	CF, 470 ohm
R982	24366682	CF, 6800 ohm
R983	24366222	CF, 2200 ohm
R984	24366821	CF, 820 ohm
R985	24367471	CF, 470 ohm, ±2%
R986	24367681	CF, 680 ohm, ±2%
R987	24367681	CF, 680 ohm, ±2%
R988	24367472	CF, 4700 ohm, ±2%
R989	24367472	CF, 4700 ohm, ±2%
R990	24366561	CF, 560 ohm
R991	24367391	CF, 390 ohm, ±2%
R992	24366150	CF, 15 ohm
R994	24366331	CF, 330 ohm
R995	24366561	CF, 560 ohm
R996	24366222	CF, 2200 ohm
R997	24366102	CF, 1k ohm
R999	24366102	CF, 1k ohm
R4222	24366472	CF, 4700 ohm
R4223	24366103	CF, 10k ohm
R4224	24366272	CF, 2700 ohm
R4225	24366102	CF, 1k ohm
R4310	24366183	CF, 18k ohm
R4403	24366101	CF, 100 ohm
R4404	24366101	CF, 100 ohm
R4406	24366752	CF, 7500 ohm
R4407	24366361	CF, 360 ohm
R4410	24366103	CF, 10k ohm
R4411	24366103	CF, 10k ohm
R4416	24366101	CF, 100 ohm
R4417	24366101	CF, 100 ohm
R4418	24366102	CF, 1k ohm
R4419	24366103	CF, 10k ohm
R4425	24552471	OMF, 470 ohm, 1/2W
R4426	24366152	CF, 1500 ohm
R4460	24366102	CF, 1k ohm
R4461	24366102	CF, 1k ohm
R4462	24366133	CF, 13k ohm
R4463	24366682	CF, 6800 ohm
R4464	24366223	CF, 22k ohm
R4472	24366223	CF, 22k ohm
R4490	24382222	OMF, 2200 ohm, 1W
R4491	24366392	CF, 3900 ohm
R4492	24366103	CF, 10k ohm
R4493	24382104	OMF, 100k ohm, 1W
R4495	24366473	CF, 47k ohm
R4799	24366103	CF, 10k ohm
RA01	24366102	CF, 1k ohm
RA03	24366102	CF, 1k ohm
RA04	24366102	CF, 1k ohm
RA05	24366102	CF, 1k ohm
RA07	24366102	CF, 1k ohm
RA08	24366102	CF, 1k ohm
RA09	24366682	CF, 6800 ohm
RA10	24366682	CF, 6800 ohm
RA11	24366331	CF, 330 ohm
RA12	24366331	CF, 330 ohm
RA13	24366153	CF, 15k ohm
RA14	24366103	CF, 10k ohm
RA16	24366102	CF, 1k ohm

Location No.	Part No.	Description
RA17	24366102	CF, 1k ohm
RA18	24366102	CF, 1k ohm
RA19	24366331	CF, 330 ohm
RA20	24366331	CF, 330 ohm
RA21	24366331	CF, 330 ohm
RA22	24366331	CF, 330 ohm
RA23	24366472	CF, 4700 ohm
RA24	24366472	CF, 4700 ohm
RA25	24366103	CF, 10k ohm
RA26	24366102	CF, 1k ohm
RA27	24366102	CF, 1k ohm
RA29	24366102	CF, 1k ohm
RA29	24366104	CF, 100k ohm
RA30	24366102	CF, 1k ohm
RA30	24366103	CF, 10k ohm
RA31	24366561	CF, 560 ohm
RA33	24366103	CF, 10k ohm
RA35	24366102	CF, 1k ohm
RA37	24366101	CF, 100 ohm
RA38	24366101	CF, 100 ohm
RA40	24366331	CF, 330 ohm
RA41	24366273	CF, 27k ohm
RA43	24366102	CF, 1k ohm
RA44	24366103	CF, 10k ohm
RA62	24366102	CF, 1k ohm
RA63	24366102	CF, 1k ohm
RA65	24366103	CF, 10k ohm
RA66	24366103	CF, 10k ohm
RA67	24366472	CF, 4700 ohm
RA68	24366472	CF, 4700 ohm
RA70	24366333	CF, 33k ohm
RA71	24366683	CF, 68k ohm
RA72	24366223	CF, 22k ohm
RA73	24366103	CF, 10k ohm
RA75	24366333	CF, 33k ohm
RA76	24366103	CF, 10k ohm
RA77	24366223	CF, 22k ohm
RA78	24366102	CF, 1k ohm
RA78	24366683	CF, 68k ohm
RA80	24366331	CF, 330 ohm (32ZD09G)
RA81	24366331	CF, 330 ohm (32ZD09G)
RA82	24366103	CF, 10k ohm (32ZD09G)
RA85	24366102	CF, 1k ohm
RA89	24366152	CF, 1500 ohm
RB01	24366271	CF, 270 ohm
RB02	24366271	CF, 270 ohm
RB03	24366101	CF, 100 ohm
RB04	24366223	CF, 22k ohm
RB05	24366223	CF, 22k ohm
RB07	24366271	CF, 270 ohm
RB08	24366271	CF, 270 ohm
RB09	24366470	CF, 47 ohm
RB10	24366101	CF, 100 ohm
RB11	24366103	CF, 10k ohm
RB30	24366103	CF, 10k ohm
RB43	24366103	CF, 10k ohm
RB44	24366103	CF, 10k ohm
RB45	24366101	CF, 100 ohm
RB81	24366122	CF, 1200 ohm
RB82	24366123	CF, 12k ohm
RB83	24366123	CF, 12k ohm
RB84	24366562	CF, 5600 ohm
RB90	24366392	CF, 3900 ohm
RB91	24366473	CF, 47k ohm

Location No.	Part No.	Description
RB92	24366271	CF, 270 ohm
RB93	24366271	CF, 270 ohm
RB94	24366222	CF, 2200 ohm
RB95	24366222	CF, 2200 ohm
RB96	24366273	CF, 27k ohm
RB97	24366273	CF, 27k ohm
RB98	24366102	CF, 1k ohm
RC01	24000824	Chip, Jumper, 2125 type
RC02	24000824	Chip, Jumper, 2125 type
RD06	24366102	CF, 1k ohm (32ZD09G)
RD08	24366102	CF, 1k ohm
RD10	24366102	CF, 1k ohm (32ZD09G)
RD16	24366333	CF, 33k ohm
RD28	24366102	CF, 1k ohm
RD85	24872151	Chip, 150 ohm, 1/16W
RD87	24872151	Chip, 150 ohm, 1/16W
RD88	24872222	Chip, 2200 ohm, 1/16W
RD89	24872151	Chip, 150 ohm, 1/16W
RF01	24872332	Chip, 3300 ohm, 1/16W (32ZD09B)
RF03	24872682	Chip, 6800 ohm, 1/16W (32ZD09B)
RF04	24872223	Chip, 22k ohm, 1/16W (32ZD09B)
RF05	24872682	Chip, 6800 ohm, 1/16W (32ZD09G)
RF06	24872223	Chip, 22k ohm, 1/16W (32ZD09G)
RF06	24872102	Chip, 1k ohm, 1/16W (32ZD09B)
RF07	24872332	Chip, 3300 ohm, 1/16W (32ZD09G)
RF08	23103832	Chip (Ferrite Bead), TEM2125M (32ZD09B)
RF09	24872683	Chip, 68k ohm, 1/16W (32ZD09G)
RF09	23103832	Chip (Ferrite Bead), TEM2125M (32ZD09B)
RF10	24872103	Chip, 10k ohm, 1/16W (32ZD09G)
RF10	23103832	Chip (Ferrite Bead), TEM2125M (32ZD09B)
RF11	24872471	Chip, 470 ohm, 1/16W (32ZD09G)
RF11	24872103	Chip, 10k ohm, 1/16W (32ZD09B)
RF12	24872104	Chip, 100k ohm, 1/16W (32ZD09G)
RF12	24872101	Chip, 100 ohm, 1/16W (32ZD09B)
RF13	24872101	Chip, 100 ohm, 1/16W (32ZD09B)
RF14	24872101	Chip, 100 ohm, 1/16W (32ZD09B)
RF15	24872103	Chip, 10k ohm, 1/16W (32ZD09B)
RF16	24872152	Chip, 1500 ohm, 1/16W (32ZD09G)
RF16	24872471	Chip, 470 ohm, 1/16W (32ZD09B)
RF17	24872102	Chip, 1k ohm, 1/16W (32ZD09G)
RF18	24872103	Chip, 10k ohm, 1/16W (32ZD09G)

Location No.	Part No.	Description
RF19	24872102	Chip, 1k ohm, 1/16W (32ZD09G)
RF20	24872101	Chip, 100 ohm, 1/16W (32ZD09G)
RF20	24872152	Chip, 1500 ohm, 1/16W (32ZD09B)
RF21	24872101	Chip, 100 ohm, 1/16W (32ZD09G)
RF21	24000824	Chip, Jumper, 2125 type (32ZD09B)
RF22	24872101	Chip, 100 ohm, 1/16W (32ZD09G)
RF22	24872102	Chip, 1k ohm, 1/16W (32ZD09B)
RF23	24872101	Chip, 100 ohm, 1/16W (32ZD09G)
RF24	24872332	Chip, 3300 ohm, 1/16W (32ZD09G)
RF25	24872332	Chip, 3300 ohm, 1/16W (32ZD09G)
RF26	24872102	Chip, 1k ohm, 1/16W (32ZD09B)
RF31	24872103	Chip, 10k ohm, 1/16W (32ZD09G)
RF32	24872103	Chip, 10k ohm, 1/16W (32ZD09G)
RF32	24872101	Chip, 100 ohm, 1/16W (32ZD09B)
RF33	24872103	Chip, 10k ohm, 1/16W (32ZD09G)
RF34	24872103	Chip, 10k ohm, 1/16W (32ZD09G)
RF34	24872102	Chip, 1k ohm, 1/16W (32ZD09B)
RF36	24872103	Chip, 10k ohm, 1/16W (32ZD09G)
RF37	24872103	Chip, 10k ohm, 1/16W (32ZD09G)
RF38	24872103	Chip, 10k ohm, 1/16W (32ZD09G)
RF39	24872472	Chip, 4700 ohm, 1/16W (32ZD09B)
RF41	24872103	Chip, 10k ohm, 1/16W (32ZD09G)
RF42	24872473	Chip, 47k ohm, 1/16W (32ZD09G)
RF43	24872332	Chip, 3300 ohm, 1/16W (32ZD09G)
RF44	24872332	Chip, 3300 ohm, 1/16W (32ZD09G)
RF45	24872103	Chip, 10k ohm, 1/16W (32ZD09G)
RF46	24872471	Chip, 470 ohm, 1/16W (32ZD09G)
RF47	24000824	Chip, Jumper, 2125 type (32ZD09G)
RF49	24872472	Chip, 4700 ohm, 1/16W (32ZD09G)
RF51	24872103	Chip, 10k ohm, 1/16W (32ZD09G)
RF52	24872332	Chip, 3300 ohm, 1/16W (32ZD09G)
RF53	24872472	Chip, 4700 ohm, 1/16W (32ZD09G)

Location No.	Part No.	Description
RF54	24872103	Chip, 10k ohm, 1/16W (32ZD09G)
RF55	24872151	Chip, 150 ohm, 1/16W (32ZD09G)
RF56	24872102	Chip, 1k ohm, 1/16W (32ZD09G)
RG03	24007045	Cement, 3.9 ohm, 5W (32ZD09G)
RG04	24376154	CF, 150k ohm, 1/2W (32ZD09G)
RG05	24310829	MF, 8.2 ohm, 1/2W (32ZD09G)
RG11	24366471	CF, 470 ohm (32ZD09G)
RG12	24310279	MF, 2.7 ohm, 1/2W (32ZD09G)
RG17	24366103	CF, 10k ohm (32ZD09G)
RG18	24366472	CF, 4700 ohm (32ZD09G)
RG19	24366103	CF, 10k ohm (32ZD09G)
RG20	24366331	CF, 330 ohm (32ZD09G)
RG21	24310829	MF, 8.2 ohm, 1/2W (32ZD09G)
RG22	24323229	MF, 2.2 ohm, 2W (32ZD09G)
RG23	24321228	MF, 0.22 ohm, 1/2W (32ZD09G)
RG24	24383331	OMF, 330 ohm, 2W (32ZD09G)
RG25	24383331	OMF, 330 ohm, 2W (32ZD09G)
RG26	24366229	CF, 2.2 ohm (32ZD09G)
RG75	24552182	OMF, 1800 ohm, 1/2W (32ZD09G)
RR01	24366102	CF, 1k ohm
RR02	24366104	CF, 100k ohm
RR03	24366222	CF, 2200 ohm
RR04	24366101	CF, 100 ohm
RR05	24366102	CF, 1k ohm
RR06	24366223	CF, 22k ohm
RR07	24366152	CF, 1500 ohm
RR10	24366102	CF, 1k ohm
RR11	24366681	CF, 680 ohm
RR12	24366152	CF, 1500 ohm
RR13	24366152	CF, 1500 ohm
RR15	24366391	CF, 390 ohm
RR16	24366391	CF, 390 ohm
RR17	24366391	CF, 390 ohm
RR18	24366102	CF, 1k ohm
RR20	24872103	Chip, 10k ohm, 1/16W
RR22	24366103	CF, 10k ohm
RR23	24366103	CF, 10k ohm
RR24	24000824	Chip, Jumper, 2125 type
RR25	24872102	Chip, 1k ohm, 1/16W
RR32	24366331	CF, 330 ohm
RR33	24366331	CF, 330 ohm
RR34	24366331	CF, 330 ohm
RR35	24366392	CF, 3900 ohm
RR36	24366392	CF, 3900 ohm
RR37	24366392	CF, 3900 ohm
RR40	24366102	CF, 1k ohm
RR48	24366102	CF, 1k ohm
RR74	24366102	CF, 1k ohm
RR75	24366102	CF, 1k ohm
RR76	24366102	CF, 1k ohm
RR77	24366102	CF, 1k ohm
RR78	24366102	CF, 1k ohm
RS01	24872681	Chip, 680 ohm, 1/16W
RS02	24872681	Chip, 680 ohm, 1/16W
RS03	24872562	Chip, 5600 ohm, 1/16W

Location No.	Part No.	Description
RS04	24872562	Chip, 5600 ohm, 1/16W
RS05	24872562	Chip, 5600 ohm, 1/16W
RS06	24872562	Chip, 5600 ohm, 1/16W
RS07	24872562	Chip, 5600 ohm, 1/16W
RS08	24872562	Chip, 5600 ohm, 1/16W
RS09	24872562	Chip, 5600 ohm, 1/16W
RS10	24872562	Chip, 5600 ohm, 1/16W
RS13	24872101	Chip, 100 ohm, 1/16W
RS14	24872101	Chip, 100 ohm, 1/16W
RS15	24872104	Chip, 100k ohm, 1/16W
RS16	24872104	Chip, 100k ohm, 1/16W
RS17	24872223	Chip, 22k ohm, 1/16W
RS18	24872223	Chip, 22k ohm, 1/16W
RS19	24872681	Chip, 680 ohm, 1/16W
RS20	24872681	Chip, 680 ohm, 1/16W
RS21	24872222	Chip, 2200 ohm, 1/16W
RS22	24872222	Chip, 2200 ohm, 1/16W
RS23	24872101	Chip, 100 ohm, 1/16W
RS24	24872101	Chip, 100 ohm, 1/16W
RS27	24872104	Chip, 100k ohm, 1/16W
RS28	24872104	Chip, 100k ohm, 1/16W
RS29	24872223	Chip, 22k ohm, 1/16W
RS30	24872223	Chip, 22k ohm, 1/16W
RS31	24872103	Chip, 10k ohm, 1/16W
RS32	24872104	Chip, 100k ohm, 1/16W
RS35	24872223	Chip, 22k ohm, 1/16W
RS36	24872223	Chip, 22k ohm, 1/16W
RS37	24872104	Chip, 100k ohm, 1/16W
RS38	24872104	Chip, 100k ohm, 1/16W
RS43	24872681	Chip, 680 ohm, 1/16W
RS44	24872681	Chip, 680 ohm, 1/16W
RV05	24872101	Chip, 100 ohm, 1/16W
RV06	24872152	Chip, 1500 ohm, 1/16W
RV07	24872103	Chip, 10k ohm, 1/16W
RV08	24872103	Chip, 10k ohm, 1/16W
RV09	24872101	Chip, 100 ohm, 1/16W
RV10	24872101	Chip, 100 ohm, 1/16W
RV12	24872681	Chip, 680 ohm, 1/16W
RV13	24872681	Chip, 680 ohm, 1/16W
RV22	24366222	CF, 2200 ohm
RV23	24552101	OMF, 100 ohm, 1/2W
RV24	24366181	CF, 180 ohm
RV25	24872101	Chip, 100 ohm, 1/16W
RV26	24366181	CF, 180 ohm
RV27	24872750	Chip, 75 ohm, 1/16W
RV28	24872562	Chip, 5600 ohm, 1/16W
RV29	24872103	Chip, 10k ohm, 1/16W
RV30	24872750	Chip, 75 ohm, 1/16W
RV31	24872750	Chip, 75 ohm, 1/16W
RV32	24872750	Chip, 75 ohm, 1/16W
RV33	24872562	Chip, 5600 ohm, 1/16W
RV34	24872562	Chip, 5600 ohm, 1/16W
RV37	24872750	Chip, 75 ohm, 1/16W
RV60	24872102	Chip, 1k ohm, 1/16W
RV61	24552101	OMF, 100 ohm, 1/2W
RV62	24872101	Chip, 100 ohm, 1/16W
RV63	24366151	CF, 150 ohm
RV64	24872750	Chip, 75 ohm, 1/16W
RV65	24552101	OMF, 100 ohm, 1/2W
RV66	24872750	Chip, 75 ohm, 1/16W
RV67	24366151	CF, 150 ohm
RV68	24872101	Chip, 100 ohm, 1/16W
RV70	24872101	Chip, 100 ohm, 1/16W
RV71	24872472	Chip, 4700 ohm, 1/16W

Location No.	Part No.	Description
RV80	24366681	CF, 680 ohm
RV81	24872750	Chip, 75 ohm, 1/16W
RV82	24872101	Chip, 100 ohm, 1/16W
RV83	24366681	CF, 680 ohm
RV85	24872750	Chip, 75 ohm, 1/16W
RV86	24872750	Chip, 75 ohm, 1/16W
RV87	24872750	Chip, 75 ohm, 1/16W
RV89	24872750	Chip, 75 ohm, 1/16W
RV90	24872681	Chip, 680 ohm, 1/16W
RV91	24872681	Chip, 680 ohm, 1/16W
RV95	24872750	Chip, 75 ohm, 1/16W
RV96	24872750	Chip, 75 ohm, 1/16W
RV97	24872750	Chip, 75 ohm, 1/16W
RX101	24872393	Chip, 39k ohm, 1/16W
RX102	24872153	Chip, 15k ohm, 1/16W
RX103	24872221	Chip, 220 ohm, 1/16W
RX104	24872392	Chip, 3900 ohm, 1/16W
RX106	24872331	Chip, 330 ohm, 1/16W
RX107	24872821	Chip, 820 ohm, 1/16W
RX108	24872680	Chip, 68 ohm, 1/16W
RX109	24872122	Chip, 1200 ohm, 1/16W
RX110	24872122	Chip, 1200 ohm, 1/16W
RX111	24872681	Chip, 680 ohm, 1/16W
RX112	24872470	Chip, 47 ohm, 1/16W
RX113	24872471	Chip, 470 ohm, 1/16W
RX114	24872681	Chip, 680 ohm, 1/16W
RX115	24872101	Chip, 100 ohm, 1/16W
RX116	24872681	Chip, 680 ohm, 1/16W
RX117	24872201	Chip, 200 ohm, 1/16W
RX118	24872221	Chip, 220 ohm, 1/16W
RX119	24872101	Chip, 100 ohm, 1/16W
RX120	24872101	Chip, 100 ohm, 1/16W
RX121	24872101	Chip, 100 ohm, 1/16W
RX122	24872122	Chip, 1200 ohm, 1/16W
RX123	24872331	Chip, 330 ohm, 1/16W
RX124	24872101	Chip, 100 ohm, 1/16W
RX125	24872101	Chip, 100 ohm, 1/16W
RX130	24872561	Chip, 560 ohm, 1/16W
RX131	24872102	Chip, 1k ohm, 1/16W
RX141	24872101	Chip, 100 ohm, 1/16W
RX143	24872393	Chip, 39k ohm, 1/16W
RX144	24872153	Chip, 15k ohm, 1/16W
RX145	24872201	Chip, 200 ohm, 1/16W
RX146	24872221	Chip, 220 ohm, 1/16W
RX147	24872681	Chip, 680 ohm, 1/16W
RX150	24872101	Chip, 100 ohm, 1/16W
RX152	24872331	Chip, 330 ohm, 1/16W
RX155	24872102	Chip, 1k ohm, 1/16W
RX156	24872272	Chip, 2700 ohm, 1/16W
RX157	24872471	Chip, 470 ohm, 1/16W
RX158	24872471	Chip, 470 ohm, 1/16W
RX161	24872101	Chip, 100 ohm, 1/16W
RX163	24872393	Chip, 39k ohm, 1/16W
RX164	24872153	Chip, 15k ohm, 1/16W
RX165	24872201	Chip, 200 ohm, 1/16W
RX166	24872221	Chip, 220 ohm, 1/16W
RX167	24872681	Chip, 680 ohm, 1/16W
RX170	24872101	Chip, 100 ohm, 1/16W
RX172	24872331	Chip, 330 ohm, 1/16W
RX175	24872102	Chip, 1k ohm, 1/16W
RX176	24872272	Chip, 2700 ohm, 1/16W
RX177	24872471	Chip, 470 ohm, 1/16W
RX178	24872471	Chip, 470 ohm, 1/16W
RX179	24872101	Chip, 100 ohm, 1/16W

Location No.	Part No.	Description
RX180	24872101	Chip, 100 ohm, 1/16W
RX181	24872680	Chip, 68 ohm, 1/16W
RX185	24872470	Chip, 47 ohm, 1/16W
RX186	24872101	Chip, 100 ohm, 1/16W
RX191	24872100	Chip, 10 ohm, 1/16W
RX192	24872100	Chip, 10 ohm, 1/16W
RX193	24872100	Chip, 10 ohm, 1/16W
RX201	24872102	Chip, 1k ohm, 1/16W
RX202	24872103	Chip, 10k ohm, 1/16W
RX203	24872103	Chip, 10k ohm, 1/16W
RX204	24000824	Chip, Jumper, 2125 type
RX205	24019439	Chip, 47 ohm, 1/16W
RX206	24019439	Chip, 47 ohm, 1/16W
RX207	24019439	Chip, 47 ohm, 1/16W
RX208	24019439	Chip, 47 ohm, 1/16W
RX209	24019439	Chip, 47 ohm, 1/16W
RX210	24019439	Chip, 47 ohm, 1/16W
RX211	24019439	Chip, 47 ohm, 1/16W
RX212	24019439	Chip, 47 ohm, 1/16W
RX214	24872103	Chip, 10k ohm, 1/16W
RX216	24872102	Chip, 1k ohm, 1/16W
RX221	24872470	Chip, 47 ohm, 1/16W
RX222	24872470	Chip, 47 ohm, 1/16W
RX223	24872470	Chip, 47 ohm, 1/16W
RX225	24872151	Chip, 150 ohm, 1/16W
RX226	24872331	Chip, 330 ohm, 1/16W
RX229	24872332	Chip, 3300 ohm, 1/16W
RX231	24872470	Chip, 47 ohm, 1/16W
RX232	24872470	Chip, 47 ohm, 1/16W
RX233	24872470	Chip, 47 ohm, 1/16W
RX235	24872274	Chip, 270k ohm, 1/16W
RX236	24872472	Chip, 4700 ohm, 1/16W
RX237	24872221	Chip, 220 ohm, 1/16W
RX240	24872272	Chip, 2700 ohm, 1/16W
RX256	24000824	Chip, Jumper, 2125 type
RX258	24872470	Chip, 47 ohm, 1/16W
RX259	24872470	Chip, 47 ohm, 1/16W
RX261	24872101	Chip, 100 ohm, 1/16W
RX263	24872101	Chip, 100 ohm, 1/16W
RX274	24872221	Chip, 220 ohm, 1/16W
RX275	24872221	Chip, 220 ohm, 1/16W
RX276	24872221	Chip, 220 ohm, 1/16W
RX277	24872221	Chip, 220 ohm, 1/16W
RX278	24872221	Chip, 220 ohm, 1/16W
RX279	24872471	Chip, 470 ohm, 1/16W
RX280	24872471	Chip, 470 ohm, 1/16W
RX281	24019439	Chip, 47 ohm, 1/16W
RX282	24019439	Chip, 47 ohm, 1/16W
RX283	24019439	Chip, 47 ohm, 1/16W
RX284	24019439	Chip, 47 ohm, 1/16W
RX285	24872332	Chip, 3300 ohm, 1/16W
RX286	24872332	Chip, 3300 ohm, 1/16W
RX291	24872101	Chip, 100 ohm, 1/16W
RX292	24872101	Chip, 100 ohm, 1/16W
RX293	24872332	Chip, 3300 ohm, 1/16W
RX301	24872201	Chip, 200 ohm, 1/16W
RX302	24872272	Chip, 2700 ohm, 1/16W
RX303	24872201	Chip, 200 ohm, 1/16W
RX304	24872272	Chip, 2700 ohm, 1/16W
RX305	24872201	Chip, 200 ohm, 1/16W
RX306	24872272	Chip, 2700 ohm, 1/16W
RX307	24872222	Chip, 2200 ohm, 1/16W
RX308	24872112	Chip, 1.1k ohm, 1/16W
RX309	24872122	Chip, 1200 ohm, 1/16W
RX310	24872122	Chip, 1200 ohm, 1/16W
RX311	24872122	Chip, 1200 ohm, 1/16W
RX312	24872101	Chip, 100 ohm, 1/16W
RX313	24872152	Chip, 1500 ohm, 1/16W
RX314	24872101	Chip, 100 ohm, 1/16W
RX315	24872101	Chip, 100 ohm, 1/16W
RX316	24872101	Chip, 100 ohm, 1/16W
RX321	24872223	Chip, 22k ohm, 1/16W
RX322	24872223	Chip, 22k ohm, 1/16W
RX325	24872101	Chip, 100 ohm, 1/16W
RX330	24872821	Chip, 820 ohm, 1/16W
RX331	24872151	Chip, 150 ohm, 1/16W
RX332	24872821	Chip, 820 ohm, 1/16W
RX334	24872561	Chip, 560 ohm, 1/16W
RX341	24872223	Chip, 22k ohm, 1/16W
RX342	24872223	Chip, 22k ohm, 1/16W
RX345	24872101	Chip, 100 ohm, 1/16W
RX350	24872821	Chip, 820 ohm, 1/16W
RX351	24872121	Chip, 120 ohm, 1/16W
RX352	24872681	Chip, 680 ohm, 1/16W
RX354	24872561	Chip, 560 ohm, 1/16W
RX361	24872223	Chip, 22k ohm, 1/16W
RX362	24872223	Chip, 22k ohm, 1/16W
RX365	24872101	Chip, 100 ohm, 1/16W
RX370	24872821	Chip, 820 ohm, 1/16W
RX371	24872121	Chip, 120 ohm, 1/16W
RX372	24872681	Chip, 680 ohm, 1/16W
RX374	24872561	Chip, 560 ohm, 1/16W
RX402	24872101	Chip, 100 ohm, 1/16W
RX404	24872101	Chip, 100 ohm, 1/16W
RX406	24872101	Chip, 100 ohm, 1/16W
RX408	24872101	Chip, 100 ohm, 1/16W
RX410	24872101	Chip, 100 ohm, 1/16W
RX412	24872101	Chip, 100 ohm, 1/16W
RX421	24872221	Chip, 220 ohm, 1/16W
RX422	24872221	Chip, 220 ohm, 1/16W
RX423	24872221	Chip, 220 ohm, 1/16W
RX424	24872221	Chip, 220 ohm, 1/16W
RX425	24872221	Chip, 220 ohm, 1/16W
RX427	24872221	Chip, 220 ohm, 1/16W
RX428	24872221	Chip, 220 ohm, 1/16W
RX429	24872221	Chip, 220 ohm, 1/16W
RX430	24872221	Chip, 220 ohm, 1/16W
RX431	24322478	MF, 0.47 ohm, 1W
RZ01	24872102	Chip, 1k ohm, 1/16W
RZ02	24872102	Chip, 1k ohm, 1/16W
RZ03	24872332	Chip, 3300 ohm, 1/16W
RZ04	24872102	Chip, 1k ohm, 1/16W
RZ05	24872391	Chip, 390 ohm, 1/16W
RZ06	24872821	Chip, 820 ohm, 1/16W
RZ08	24872391	Chip, 390 ohm, 1/16W
RZ09	24872101	Chip, 100 ohm, 1/16W
RZ13	24872102	Chip, 1k ohm, 1/16W
RZ14	24872102	Chip, 1k ohm, 1/16W
RZ15	24872102	Chip, 1k ohm, 1/16W
RZ17	24872391	Chip, 390 ohm, 1/16W
RZ18	24872391	Chip, 390 ohm, 1/16W
RZ20	24872101	Chip, 100 ohm, 1/16W
RZ29	24872101	Chip, 100 ohm, 1/16W
RZ30	24872101	Chip, 100 ohm, 1/16W

COILS & TRANSFORMERS

L101	23221803	Coil, Choke, TLN3040D
L201	23289840	Coil, Peaking, TRF4100AT

Location No.	Part No.	Description
L301	23103859	Coil (Ferrite Bead), TEM2011
L302	23289846	Coil, Peaking, TRF4101AT
L400	23289840	Coil, Peaking, TRF4100AT
L400	23289846	Coil, Peaking, TRF4101AT
L410	23103859	Coil (Ferrite Bead), TEM2011
L441	23233986	Coil, Linearity, TLN2209AG
L442	23248169	Coil, Choke, TLN3329AD
L449	23103859	Coil (Ferrite Bead), TEM2011
L461	23248238	Coil, Choke, TLN3335AF
L470	23103859	Coil (Ferrite Bead), TEM2011
L501	23238714	Coil, Peaking, TRF4100AJ
L501	23289840	Coil, Peaking, TRF4100AT
L503	23289840	Coil, Peaking, TRF4100AT
L503	23289844	Coil, Peaking, TRF4470AT
L510	23103852	Coil, Filter, TEM2028AH
L511	23103852	Coil, Filter, TEM2028AH
L512	23103898	Coil, Filter, TEM2030AH
L513	23103898	Coil, Filter, TEM2030AH
L513	23103898	Coil, Filter, TEM2030AH
L515	23103898	Coil, Filter, TEM2030AH
L605	23248073	Coil, Choke, TLN3299D
L631	23103832	Chip (Ferrite Bead), TEM2125M
L632	24000824	Chip Jumper, 2125 Type
L643	23103887	Chip (Ferrite Bead), TEM2130AM
L644	23103887	Chip (Ferrite Bead), TEM2130AM
L671	23103887	Chip (Ferrite Bead), TEM2130AM
L672	23103887	Chip (Ferrite Bead), TEM2130AM
L676	23103832	Chip (Ferrite Bead), TEM2125M
L677	23103832	Chip (Ferrite Bead), TEM2125M
L682	23103832	Chip (Ferrite Bead), TEM2125M
L683	23103832	Chip (Ferrite Bead), TEM2125M
L684	23289834	Coil, Peaking, TRF41R0AT
L685	23289834	Coil, Peaking, TRF41R0AT
L701	23289100	Coil, Peaking, TRF4100AF
L702	23261974	Coil, Choke, HC5-035
L704	23103859	Coil (Ferrite Bead), TEM2011
L705	23103859	Coil (Ferrite Bead), TEM2011
L801	23217469	Transformer, Choke, TPW2024AS
L811	23103859	Coil (Ferrite Bead), TEM2011
L876	23280016	Coil, Peaking, TRF4100AZ
L883	23221747	Coil, Choke, TRF9253D
L885	23248073	Coil, Choke, TLN3299D
L886	23103859	Coil (Ferrite Bead), TEM2011
L889	23222694	Coil, Width, TLN2026
L891	23103859	Coil (Ferrite Bead), TEM2011
L892	23103859	Coil (Ferrite Bead), TEM2011
L893	23280016	Coil, Peaking, TRF4100AZ
L894	23289840	Coil, Peaking, TRF4100AT
L895	23222694	Coil, Width, TLN2026
L896	23103859	Coil (Ferrite Bead), TEM2011
L897	23222694	Coil, Width, TLN2026
⚠L901	23200404	Coil, Degaussing, TSB-2395AM
L902	23289101	Coil, Peaking, TRF4101AF

Location No.	Part No.	Description
L903	23289101	Coil, Peaking, TRF4101AF
L904	23289101	Coil, Peaking, TRF4101AF
L905	23289150	Coil, Peaking, TRF4150AF
L906	23289150	Coil, Peaking, TRF4150AF
L907	23289150	Coil, Peaking, TRF4150AF
L908	23289100	Coil, Peaking, TRF4100AF
L910	23289109	Coil, Peaking, TRF41R0AF
L911	23289101	Coil, Peaking, TRF4101AF
LA01	23289840	Coil, Peaking, TRF4100AT
LC43	23103775	Coil (Ferrite Bead), TEM2014
LC44	23103775	Coil (Ferrite Bead), TEM2014
LC45	23289834	Coil, Peaking, TRF41R0AT
LC88	23289834	Coil, Peaking, TRF41R0AT
LD87	23103832	Chip (Ferrite Bead), TEM2125M
LD89	23289844	Coil, Peaking, TRF4470AT
LF01	23289840	Coil, Peaking, TRF4100AT (32ZD09G)
LF01	23103775	Coil (Ferrite Bead), TEM2014 (32ZD09B)
LF02	23289834	Coil, Peaking, TRF41R0AT (32ZD09G)
LF06	23238562	Coil, Peaking, TRF4109AJ (32ZD09B)
LF07	23238562	Coil, Peaking, TRF4109AJ (32ZD09B)
LF08	23238714	Coil, Peaking, TRF4100AJ (32ZD09B)
LF09	23238714	Coil, Peaking, TRF4100AJ (32ZD09B)
LF10	23289840	Coil, Peaking, TRF4100AT (32ZD09G)
LF10	23238562	Coil, Peaking, TRF4109AJ (32ZD09B)
LF11	23289834	Coil, Peaking, TRF41R0AT (32ZD09B)
LF12	23289840	Coil, Peaking, TRF4100AT (32ZD09B)
LF13	23289840	Coil, Peaking, TRF4100AT (32ZD09B)
LF17	23289840	Coil, Peaking, TRF4100AT (32ZD09B)
LF21	23238714	Coil, Peaking, TRF4100AJ (32ZD09G)
LF22	23238562	Coil, Peaking, TRF4109AJ (32ZD09G)
LF23	23238562	Coil, Peaking, TRF4109AJ (32ZD09G)
LF24	23238562	Coil, Peaking, TRF4109AJ (32ZD09G)
LF28	23238506	Coil, Peaking, TRF4229AJ (32ZD09G)
LF29	23238714	Coil, Peaking, TRF4100AJ (32ZD09G)
LF30	23238714	Coil, Peaking, TRF4100AJ (32ZD09G)
LF31	23289840	Coil, Peaking, TRF4100AT (32ZD09G)
LF50	23238714	Coil, Peaking, TRF4100AJ (32ZD09G)
LG03	23103859	Coil (Ferrite Bead), TEM2011 (32ZD09G)
LG08	23103859	Coil (Ferrite Bead), TEM2011 (32ZD09G)

Location No.	Part No.	Description
LG10	23103859	Coil (Ferrite Bead), TEM2011 (32ZD09G)
LG11	23103859	Coil (Ferrite Bead), TEM2011 (32ZD09G)
LG24	23280016	Coil, Peaking, TRF4100AZ (32ZD09G)
LG25	23289840	Coil, Peaking, TRF4100AT (32ZD09G)
LR01	23289834	Coil, Peaking, TRF41R0AT
LR02	23289834	Coil, Peaking, TRF41R0AT
LR26	23103898	Coil, Filter, TEM2030AH
LS45	23103832	Chip (Ferrite Bead), TEM2125M
LS46	23103832	Chip (Ferrite Bead), TEM2125M
LV01	23103852	Coil, Filter, TEM2028AH
LV02	23103898	Coil, Filter, TEM2030AH
LV03	23103852	Coil, Filter, TEM2028AH
LV06	23103832	Chip (Ferrite Bead), TEM2125M
LV07	23103832	Chip (Ferrite Bead), TEM2125M
LV09	23289840	Coil, Peaking, TRF4100AT
LV10	23103852	Coil, Filter, TEM2028AH
LV11	23103852	Coil, Filter, TEM2028AH
LV20	23103898	Coil, Filter, TEM2030AH
LV42	23289840	Coil, Peaking, TRF4100AT
LV43	23289840	Coil, Peaking, TRF4100AT
LV49	23103852	Coil, Filter, TEM2028AH
LX101	23103822	Chip (Ferrite Bead), TEM2117T
LX104	23245827	Chip, Inductor, TRF45R6CB
LX105	23103822	Chip (Ferrite Bead), TEM2117T
LX106	23103822	Chip (Ferrite Bead), TEM2117T
LX107	23103822	Chip (Ferrite Bead), TEM2117T
LX110	23103822	Chip (Ferrite Bead), TEM2117T
LX143	23245835	Chip, Inductor, TRF4270CB
LX144	23103822	Chip (Ferrite Bead), TEM2117T
LX145	23103822	Chip (Ferrite Bead), TEM2117T
LX150	23103822	Chip (Ferrite Bead), TEM2117T
LX152	23103822	Chip (Ferrite Bead), TEM2117T
LX153	23103822	Chip (Ferrite Bead), TEM2117T
LX163	23245835	Chip, Inductor, TRF4270CB
LX201	23103886	Chip (Ferrite Bead), TEM2129AM
LX221	23103822	Chip (Ferrite Bead), TEM2117T
LX222	23103822	Chip (Ferrite Bead), TEM2117T
LX223	23103822	Chip (Ferrite Bead), TEM2117T
LX226	23103822	Chip (Ferrite Bead), TEM2117T
LX227	23103822	Chip (Ferrite Bead), TEM2117T
LX231	23103822	Chip (Ferrite Bead), TEM2117T
LX232	23103822	Chip (Ferrite Bead), TEM2117T
LX233	23103822	Chip (Ferrite Bead), TEM2117T
LX236	23103822	Chip (Ferrite Bead), TEM2117T
LX237	23103822	Chip (Ferrite Bead), TEM2117T
LX241	23103822	Chip (Ferrite Bead), TEM2117T
LX261	23103822	Chip (Ferrite Bead), TEM2117T
LX271	23103822	Chip (Ferrite Bead), TEM2117T
LX301	23103822	Chip (Ferrite Bead), TEM2117T
LX321	23103822	Chip (Ferrite Bead), TEM2117T
LX322	23245825	Chip, Inductor, TRF43R9CB
LX342	23245826	Chip, Inductor, TRF44R7CB
LX362	23245826	Chip, Inductor, TRF44R7CB
LX401	23103886	Chip (Ferrite Bead), TEM2129AM

Location No.	Part No.	Description
LX402	23103822	Chip (Ferrite Bead), TEM2117T
LX403	23103822	Chip (Ferrite Bead), TEM2117T
LX404	23103822	Chip (Ferrite Bead), TEM2117T
LX405	23103822	Chip (Ferrite Bead), TEM2117T
LX407	23103822	Chip (Ferrite Bead), TEM2117T
LX421	23238562	Coil, Peaking, TRF4109AJ
LX422	23238562	Coil, Peaking, TRF4109AJ
LX423	23238562	Coil, Peaking, TRF4109AJ
LX424	23238562	Coil, Peaking, TRF4109AJ
LX425	23238562	Coil, Peaking, TRF4109AJ
LX427	23238562	Coil, Peaking, TRF4109AJ
LX428	23238718	Coil, Peaking, TRF4479AJ
LX429	23238718	Coil, Peaking, TRF4479AJ
LX430	23238562	Coil, Peaking, TRF4109AJ
LX431	23103880	Coil (Ferrite Bead), TEM2011Y
LZ01	23238710	Coil, Peaking, TRF4220AJ
LZ02	23238714	Coil, Peaking, TRF4100AJ
LZ03	23238714	Coil, Peaking, TRF4100AJ
LZ04	23238708	Coil, Peaking, TRF4330AJ
LZ05	23238709	Coil, Peaking, TRF4270AJ
LZ06	23103852	Coil, Filter, TEM2028AH
LZ07	70131060	Beze Filter, ZBF253D-00
LZ08	23238707	Coil, Peaking, TRF4390AJ
LZ09	70131060	Beze Filter, ZBF253D-00
LZ10	70131060	Beze Filter, ZBF253D-00
⚠T400	23224364	Transformer, Focus, TLN2168AH
T401	23224371	Transformer, Horiz, Drive, TLN1080AH
⚠T461	23236671	Transformer, Flyback, TFB4171AD
T461B	23501175	Cable, Forcus
T461D	23236447	Screen, SCREEN4115
T801	23211728	Line Filter, TRF3231AQ
T802	23211728	Line Filter, TRF3231AQ
⚠T863	23217434	Transformer, Converter, TPW3427AG
⚠TG01	23217466	Transformer, Converter, TPW3449AM (32ZD09G)

SEMICONDUCTORS

Q200	A6330059	Transistor, 2SC2482(C)
Q201	A6317440	Transistor, 2SC1815-Y
Q202	A6534040	Transistor, 2SA1015-Y
Q203	A6534040	Transistor, 2SA1015-Y
Q204	A6534040	Transistor, 2SA1015-Y
Q205	A6534040	Transistor, 2SA1015-Y
Q206	A6317440	Transistor, 2SC1815-Y
Q209	A6534040	Transistor, 2SA1015-Y
Q237	A6317440	Transistor, 2SC1815-Y
Q261	A6534040	Transistor, 2SA1015-Y
Q262	A6317440	Transistor, 2SC1815-Y
Q263	A6317440	Transistor, 2SC1815-Y
Q274	A6335470	Transistor, 2SC2712-Y
Q301	23905610	IC, LA7846N
Q301B	70391355	Screw, BITTB3X8 SZN
Q302	B01A0151	IC, TA1317N
Q303	A6534040	Transistor, 2SA1015-Y
Q304	A6317440	Transistor, 2SC1815-Y
Q360	A6317440	Transistor, 2SC1815-Y
Q370	A6002020	Transistor, RN1202
Q370	A6534040	Transistor, 2SA1015-Y
Q371	A6002020	Transistor, RN1202
Q402	A6325413	Transistor, 2SC2235-O

Location No.	Part No.	Description
Q404	A6374144	Transistor, 2CS5570
Q404B	A8012650	Spacer, AC263
Q404D	72471082	Screw, BRDT2W3X10 SZN
Q418	23314141	Transistor, 2SC3852
Q418B	70391355	Screw, BITTB3X8 SZN
Q420	23314141	Transistor, 2SC3852
Q420B	70391355	Screw, BITTB3X8 SZN
Q421	A6317440	Transistor, 2SC1815-Y
Q425	A6317440	Transistor, 2SC1815-Y
Q426	A6002060	Transistor, RN1206
Q427	A6002060	Transistor, RN1206
Q428	A6002060	Transistor, RN1206
Q430	23314141	Transistor, 2SC3852
Q430B	70391355	Screw, BITTB3X8 SZN
Q432	A6317440	Transistor, 2SC1815-Y (32ZD09B)
Q460	23314850	Transistor, 2SA1788, E
Q460B	72471082	Screw, BRDT2W3X10 SZN
Q461	A6317440	Transistor, 2SC1815-Y
Q462	A6317440	Transistor, 2SC1815-Y
Q470	A6317440	Transistor, 2SC1815-Y
Q470	A6547250	Transistor, 2SA1320
Q471	A6317440	Transistor, 2SC1815-Y
Q472	A6317440	Transistor, 2SC1815-Y
Q473	A6534040	Transistor, 2SA1015-Y
Q501	B01A2290	IC, TB1239BF(J)
Q504	A6541130	Transistor, 2SA1162-Y
Q505	A6541130	Transistor, 2SA1162-Y
Q506	A6317440	Transistor, 2SC1815-Y
Q507	A6361770	Transistor, 2SC3437-Y
Q510	B0386208	IC, TA1276AN
Q608	A6534040	Transistor, 2SA1015-Y
Q612	A6534040	Transistor, 2SA1015-Y
Q620	23906596	IC, BA4558
Q631	23906596	IC, BA4558
Q632	A6014040	Transistor, RN2404
Q633	A6359870	Transistor, 2SC3326-B
Q634	A6014040	Transistor, RN2404
Q635	A6359870	Transistor, 2SC3326-B
Q639	A6342200	Transistor, 2CS2878-A
Q640	B0377308	IC, TA8256BH
Q640B	70391355	Screw, BITTB3X8 SZN
Q641	A6342200	Transistor, 2CS2878-A
Q642	A6342200	Transistor, 2CS2878-A
Q670	B0376856	IC, TA8211AH
Q670B	70391355	Screw, BITTB3X8 SZN
Q671	A6342200	Transistor, 2CS2878-A
Q672	A6342200	Transistor, 2CS2878-A
Q688	A6002040	Transistor, RN1204
Q705	A6317440	Transistor, 2SC1815-Y
Q706	A6317440	Transistor, 2SC1815-Y
Q707	A6734590	Transistor, 2SC752(G)TM-Y
Q709	A6317440	Transistor, 2SC1815-Y
Q710	A6534040	Transistor, 2SA1015-Y
Q711	23314911	Transistor, 2SB1569A E
Q711B	70391355	Screw, BITTB3X8 SZN
Q712	23314914	Transistor, 2SD2400A E
Q712B	70391355	Screw, BITTB3X8 SZN
Q719	A6317440	Transistor, 2SC1815-Y
Q801	23135008	IC, STR-F6668B
Q801B	72471082	Screw, BRDT2W3X10 SZN
Q802	23314141	Transistor, 2SC3852
Q802B	70391355	Screw, BITTB3X8 SZN
Q805	A6314440	Transistor, 2SC1627-Y

Location No.	Part No.	Description
Q805	A6317440	Transistor, 2SC1815-Y (32ZD09B)
Q807	A6317440	Transistor, 2SC1815-Y (32ZD09G)
⚠ Q826	A8643108	Photo Coupler, TLP621(GR-LF
Q827	23319693	IC, SE116N, LF4
Q830	23314141	Transistor, 2SC3852
Q830B	70391355	Screw, BITTB3X8 SZN
Q831	23314141	Transistor, 2SC3852
Q831B	70391355	Screw, BITTB3X8 SZN
Q832	23905977	IC, PQ09RD11
Q832B	70391355	Screw, BITTB3X8 SZN
Q833	23314141	Transistor, 2SC3852
Q833B	70391355	Screw, BITTB3X8 SZN
Q840	23318299	IC, L78MR05
Q840B	70391355	Screw, BITTB3X8 SZN
Q841	A6317440	Transistor, 2SC1815-Y (32ZD09B)
Q842	A6317440	Transistor, 2SC1815-Y (32ZD09B)
Q901	A6368700	Transistor, 2CS4544
Q901B	70391355	Screw, BITTB3X8 SZN
Q902	A6317440	Transistor, 2SC1815-Y
Q903	A6368700	Transistor, 2CS4544
Q903B	70391355	Screw, BITTB3X8 SZN
Q904	A6317440	Transistor, 2SC1815-Y
Q905	A6368700	Transistor, 2CS4544
Q905B	70391355	Screw, BITTB3X8 SZN
Q906	A6317440	Transistor, 2SC1815-Y
Q907	A6509140	Transistor, 2SA562TM-Y
Q908	A6321240	Transistor, 2SC2120-Y
Q910	A6317440	Transistor, 2SC1815-Y
Q911	A6317440	Transistor, 2SC1815-Y
Q912	A6534040	Transistor, 2SA1015-Y
Q913	A6534040	Transistor, 2SA1015-Y
Q914	A6317440	Transistor, 2SC1815-Y
Q917	A6317440	Transistor, 2SC1815-Y
Q918	A6534040	Transistor, 2SA1015-Y
Q919	A6317440	Transistor, 2SC1815-Y
Q920	A6534040	Transistor, 2SA1015-Y
Q921	A6317440	Transistor, 2SC1815-Y
Q922	A6317440	Transistor, 2SC1815-Y
Q4420	B01A0067	IC, TA1300AN
Q4460	A6317440	Transistor, 2SC1815-Y
Q4462	A6317440	Transistor, 2SC1815-Y
Q4490	A8641063	Photo Coupler, TLP521-1
Q4491	23314917	Transistor, 2SK2003-01MR
Q4493	A6317440	Transistor, 2SC1815-Y
QA01	23000793	IC, 750010-151S (32ZD09G)
QA01	23000794	IC, 750010-152S (32ZD09B)
QA02	23906642	IC, AT24C64-10PC
QA05	A6734590	Transistor, 2SC752(G)TM-Y
QA80	A6002020	Transistor, RN1202 (32ZD09G)
QA81	A6002020	Transistor, RN1202 (32ZD09G)
QA82	23904943	IC, MM1111XS (32ZD09G)
QA83	A6002040	Transistor, RN1204 (32ZD09G)
QB01	A6534040	Transistor, 2SA1015-Y
QB03	A6002050	Transistor, RN1205
QB03	A6534040	Transistor, 2SA1015-Y
QB04	A6534040	Transistor, 2SA1015-Y
QB30	A6317440	Transistor, 2SC1815-Y
QB81	A6342200	Transistor, 2CS2878-A
QB82	A6342200	Transistor, 2CS2878-A
QB83	A6534040	Transistor, 2SA1015-Y

Location No.	Part No.	Description
QB92	A6317440	Transistor, 2SC1815-Y
QB93	A6534040	Transistor, 2SA1015-Y
QB94	A6534040	Transistor, 2SA1015-Y
QB95	A6534040	Transistor, 2SA1015-Y
QB96	A6534040	Transistor, 2SA1015-Y
QD89	A6335470	Transistor, 2SC2712-Y
QF01	23906551	IC, SDA5275-3P (32ZD09G)
QF01	23000507	IC, SDA5275-3S (32ZD09B)
QF02	23906927	IC, SAB-C161RI (32ZD09G)
QF03	23000656	IC, MX29F040QC-7 (32ZD09G)
QF03	23314204	Transistor, 2SC2412K, Q (32ZD09B)
QF04	23000969	IC, MX29F040QC (32ZD09G)
QF04	A6734590	Transistor, 2SC752(G)TM-Y (32ZD09B)
QF05	23000039	IC, AT24C08N10SC (32ZD09G)
QF08	A6541130	Transistor, 2SA1162-Y (32ZD09B)
QF10	23000347	IC, MSM5116400D
QF11	23906367	IC, PST9146NL
QF32	A6361770	Transistor, 2SC3437-Y (32ZD09G)
QF33	A6335470	Transistor, 2SC2712-Y (32ZD09G)
QF34	A6335470	Transistor, 2SC2712-Y (32ZD09G)
QF35	A6335470	Transistor, 2SC2712-Y (32ZD09G)
QF36	A6541130	Transistor, 2SA1162-Y (32ZD09G)
QG01	23135014	IC, STR-G5551 (32ZD09G)
QG01B	70391355	Screw, BITTB3X8 SZN (32ZD09G)
QG36	23314141	Transistor, 2SC3852 (32ZD09G)
QG36B	70391355	Screw, BITTB3X8 SZN (32ZD09G)
QG37	A6534040	Transistor, 2SA1015-Y (32ZD09G)
QG38	A6317440	Transistor, 2SC1815-Y (32ZD09G)
QR01	23000123	IC, MB90096-192
QR03	23114530	Transistor, 2SA933S-Q
QR24	A6335470	Transistor, 2SC2712-Y
QS01	A6359870	Transistor, 2SC3326-B
QS02	A6359870	Transistor, 2SC3326-B
QS03	A6335470	Transistor, 2SC2712-Y
QS04	A6335470	Transistor, 2SC2712-Y
QS05	A6359870	Transistor, 2SC3326-B
QS06	A6359870	Transistor, 2SC3326-B
QS07	A6014040	Transistor, RN2404
QS08	A6359870	Transistor, 2SC3326-B
QS09	A6359870	Transistor, 2SC3326-B
QV01	23000369	IC, MM1495XD
QV02	A6317440	Transistor, 2SC1815-Y
QV06	A6541130	Transistor, 2SA1162-Y
QV07	A6335470	Transistor, 2SC2712-Y
QV09	A6317440	Transistor, 2SC1815-Y
QV10	A6335470	Transistor, 2SC2712-Y
QV12	A6317440	Transistor, 2SC1815-Y
QV14	A6317440	Transistor, 2SC1815-Y
QX01	23906921	IC, TC90A61F
QX02	23000198	IC, EM636327Q-8
QX03	23905013	IC, TLC29321PW

Location No.	Part No.	Description
QX04	23906951	IC, SN74AHCT1G32
QX05	23906951	IC, SN74AHCT1G32
QX07	23905939	IC, TLC2933IPW
QX08	23906951	IC, SN74AHCT1G32
QX09	23906951	IC, SN74AHCT1G32
QX11	23906318	IC, ADS932E
QX12	23906318	IC, ADS932E
QX15	23314345	Transistor, IMZ1 T108
QX16	23314345	Transistor, IMZ1 T108
QX17	23314345	Transistor, IMZ1 T108
QX18	23314345	Transistor, IMZ1 T108
QX19	A6541130	Transistor, 2SA1162-Y
QX20	A6030670	IC, TC7S66F
QX21	A6030630	IC, TC7S08F
QX22	23314345	Transistor, IMZ1 T108
QX24	23314345	Transistor, IMZ1 T108
QX25	23000197	IC, SN74AHC2G53H
QX26	A6541130	Transistor, 2SA1162-Y
QX27	A6030670	IC, TC7S66F
QX29	23314345	Transistor, IMZ1 T108
QX31	23314345	Transistor, IMZ1 T108
QX33	A6541130	Transistor, 2SA1162-Y
QX34	A6030670	IC, TC7S66F
QX35	23314345	Transistor, IMZ1 T108
QX37	A6335470	Transistor, 2SC2712-Y
QX38	A6335470	Transistor, 2SC2712-Y
QX39	A6335470	Transistor, 2SC2712-Y
QX41	A6335470	Transistor, 2SC2712-Y
QX42	A6335470	Transistor, 2SC2712-Y
QX44	A6335470	Transistor, 2SC2712-Y
QX45	A6335470	Transistor, 2SC2712-Y
QX47	A6335470	Transistor, 2SC2712-Y
QX48	A6335470	Transistor, 2SC2712-Y
QX49	23000095	IC, SN74AHC2G241
QX50	B0485484	IC, TC74HCT541AF
QX51	23906770	IC, BA033FP-E2
QX52	A6030695	IC, TC7SH32FU(BR
QX53	A6030695	IC, TC7SH32FU(BR
QX54	A6004010	Transistor, RN1401
QX55	B0370000	IC, TC78L05F
QX56	A6541130	Transistor, 2SA1162-Y
QX57	A6004010	Transistor, RN1401
QX58	A6004010	Transistor, RN1401
QZ01	B0410895	IC, TC90A49P
QZ02	A6335470	Transistor, 2SC2712-Y
QZ04	A6541130	Transistor, 2SA1162-Y
QZ05	A6541130	Transistor, 2SA1162-Y
QZ07	A6541130	Transistor, 2SA1162-Y
QZ08	A6335470	Transistor, 2SC2712-Y
D101	23316756	Diode, Zener, MTZJ33D
D201	23115599	Diode, 1N4148
D240	23115599	Diode, 1N4148
D301	23118094	Diode, EU2A, LF-F10
D302	23118094	Diode, EU2A, LF-F10
D304	23118094	Diode, EU2A, LF-F10
D312	23115599	Diode, 1N4148
D313	23115599	Diode, 1N4148
D320	23115599	Diode, 1N4148
D336	23316672	Diode, Zener, MTZJ5.6B
D337	23316672	Diode, Zener, MTZJ5.6B
D370	23118479	Diode, BYD33J
D370	23316658	Diode, Zener, MTZJ3.6A
D371	23115599	Diode, 1N4148
D371	23118479	Diode, BYD33J

Location No.	Part No.	Description
D373	23316690	Diode, Zener, MTZJ10B
D374	23115599	Diode, 1N4148
D404	23357043	Diode, FMQ-G5GS
D404B	72471082	Screw, BRDT2W3X10 SZN
D406	23118479	Diode, BYD33J
D415	23118094	Diode, EU2A, LF-F10
D418	23316749	Diode, Zener, MTZJ30A
D419	23316691	Diode, Zener, MTZJ10C
D420	23316682	Diode, Zener, MTZJ7.5C
D421	23316680	Diode, Zener, MTZJ7.5A
D422	23316726	Diode, Zener, MTZJ15C
D431	23316670	Diode, Zener, MTZJ5.1C
D432	23316670	Diode, Zener, MTZJ5.1C
D436	23115599	Diode, 1N4148
D441	23316687	Diode, Zener, MTZJ9.1B
D460	23118479	Diode, BYD33J
D461	23316803	Diode, FMU-G16S
D461B	70391355	Screw, BITTB3X8 SZN
D463	23115599	Diode, 1N4148
D464	23316718	Diode, Zener, MTZJ12A
D466	23316672	Diode, Zener, MTZJ5.6B
D467	23118479	Diode, BYD33J
D470	23316670	Diode, Zener, MTZJ5.1C
D474	23316719	Diode, Zener, MTZJ12B
D488	23115599	Diode, 1N4148
D490	23115599	Diode, 1N4148
D498	23316745	Diode, Zener, MTZJ27A
D499	23115599	Diode, 1N4148
D501	23115599	Diode, 1N4148
D506	23316673	Diode, Zener, MTZJ5.6C
D507	23357037	Diode, Zener, UDZSTE175.6B
D508	23357037	Diode, Zener, UDZSTE175.6B
D509	23357037	Diode, Zener, UDZSTE175.6B
D511	23357037	Diode, Zener, UDZSTE175.6B
D512	23357037	Diode, Zener, UDZSTE175.6B
D513	23357037	Diode, Zener, UDZSTE175.6B
D611	23115599	Diode, 1N4148
D612	23115599	Diode, 1N4148
D613	23115599	Diode, 1N4148
D614	23115599	Diode, 1N4148
D624	23115599	Diode, 1N4148
D625	23115599	Diode, 1N4148
D626	23115599	Diode, 1N4148
D627	23115599	Diode, 1N4148
D628	23115599	Diode, 1N4148
D630	23115599	Diode, 1N4148
D631	23118269	Diode, Zener, RD22M-T1BB2
D640	23115599	Diode, 1N4148
D641	23115599	Diode, 1N4148
D642	23115599	Diode, 1N4148
D643	23115599	Diode, 1N4148
D647	23115599	Diode, 1N4148
D648	23115599	Diode, 1N4148
D670	23115599	Diode, 1N4148
D671	23115599	Diode, 1N4148
D674	23115599	Diode, 1N4148
D675	23115599	Diode, 1N4148
D683	23115599	Diode, 1N4148
D704	23115599	Diode, 1N4148
D705	23115599	Diode, 1N4148
D715	23115599	Diode, 1N4148
D721	23115599	Diode, 1N4148
D801	23357041	Diode, LN6SB60-F05
D804	23316725	Diode, Zener, MTZJ15B

Location No.	Part No.	Description
D805	23316553	Diode, 1SS145
D806	23118479	Diode, BYD33J
D810	23316738	Diode, Zener, MTZJ22B
D811	23115599	Diode, 1N4148
D815	23316746	Diode, Zener, MTZJ27B
D817	23115599	Diode, 1N4148
D818	23316738	Diode, Zener, MTZJ22B
D819	23316678	Diode, Zener, MTZJ6.8B
D828	23115599	Diode, 1N4148
D836	23316673	Diode, Zener, MTZJ5.6C
D841	23115599	Diode, 1N4148 (32ZD09G)
D842	23316724	Diode, Zener, MTZJ15A
D844	23316717	Diode, Zener, MTZJ11C
D848	23316675	Diode, Zener, MTZJ6.2B (32ZD09B)
D855	23115599	Diode, 1N4148
D871	23118479	Diode, BYD33J
D883	23316803	Diode, FMU-G16S
D883B	70391355	Screw, BITTB3X8 SZN
D885	23316642	Diode, YG911S2R
D885B	70391355	Screw, BITTB3X8 SZN
D891	23357020	Diode, SF5S4
D891B	70391355	Screw, BITTB3X8 SZN
D892	23316184	Diode, FML-G12S
D892B	70391355	Screw, BITTB3X8 SZN
D893	23316673	Diode, Zener, MTZJ5.6C
D894	23316673	Diode, Zener, MTZJ5.6C
D896	23118479	Diode, BYD33J
D901	23115599	Diode, 1N4148
D904	23115599	Diode, 1N4148
D905	23115599	Diode, 1N4148
D906	23115599	Diode, 1N4148
D907	23115599	Diode, 1N4148
D908	23115599	Diode, 1N4148
D909	23115599	Diode, 1N4148
D911	23118479	Diode, BYD33J
D4222	23316744	Diode, Zener, MTZJ24D
D4223	23115532	Diode, ERB12-01E
D4410	23115599	Diode, 1N4148
D4411	23115599	Diode, 1N4148
D4412	23115599	Diode, 1N4148
DA02	23115599	Diode, 1N4148
DA03	23115599	Diode, 1N4148
DA42	23115599	Diode, 1N4148
DB01	23358505	Diode (LED), SLR56VC196F
DB02	23358503	Diode (LED), SCL003MC3FX
DB03	23358503	Diode (LED), SCL003MC3FX
DB04	23358515	Diode (LED), SCL003DC3FXG, Orange
DB30	23115599	Diode, 1N4148
DD89	23118310	Diode, Zener, RD5.6M-T1B2
DF01	23316654	Diode, Zener, MTZJ3.0A
DF02	23115599	Diode, 1N4148 (32ZD09G)
DG02	23316711	Diode, S1WBA60, 4101 (32ZD09G)
DG03	23118479	Diode, BYD33J (32ZD09G)
DG10	23118479	Diode, BYD33J (32ZD09G)
DG11	23316746	Diode, Zener, MTZJ27B (32ZD09G)
DG12	23316672	Diode, Zener, MTZJ5.6B (32ZD09G)
DG13	23316746	Diode, Zener, MTZJ27B (32ZD09G)
DG21	23118479	Diode, BYD33J (32ZD09G)

Location No.	Part No.	Description
DG25	23118052	Diode, RU4Z LF-L1 (32ZD09G)
DG27	23316673	Diode, Zener, MTZJ5.6C (32ZD09G)
DR01	23115599	Diode, 1N4148
DR02	23115599	Diode, 1N4148
DR02	23316557	Diode, HSM221C, TL
DR03	23115599	Diode, 1N4148
DR03	23118351	Diode, Zener, RD4.7M-T1BB2
DV14	23118296	Diode, Zener, RD9.1M-T1BB2
DV21	23115599	Diode, 1N4148

MISCELLANEOUS

B221	23037312	Screw, BTBW 3X12 SZN
B223	23035412	Screw, BTB 4X12 SZN
B224	23037312	Screw, BTBW 3X12 SZN
BB10	23368627	Plug, 8P
BB10A	23903022	Socket, 8P
BB10B	23903022	Socket, 8P
BB11	23368627	Plug, 8P
BB11A	23903022	Socket, 8P
BB11B	23903022	Socket, 8P
BB12	23368627	Plug, 8P
BB12A	23903022	Socket, 8P
BB12B	23903022	Socket, 8P
BB14	23368627	Plug, 8P
BB14A	23903022	Socket, 8P
BB14B	23903022	Socket, 8P
BB15	23368627	Plug, 8P
BB15A	23903022	Socket, 8P
BB15B	23903022	Socket, 8P
BB16	23368627	Plug, 8P
BB16A	23903022	Socket, 8P
BB16B	23903022	Socket, 8P
E006	23150232	Speaker Box, SSV98
⚠F470	23144503	Fuse, 1.25A, 250V
F470A	23165433	Holder, Fuse
⚠F801	23144508	Fuse, 4.0A, 250V
F801A	23165433	Holder, Fuse
⚠F802	23144506	Fuse, 2.5A, 250V
F802A	23165433	Holder, Fuse
F889	23144458	Fuse, 5.0A, 250V
F889A	23165433	Holder, Fuse
G299	24366103	CF, 10k ohm
G306	24366562	CF, 5600 ohm
G312	24366472	CF, 4700 ohm
G337	24366153	CF, 15k ohm
G401	23103859	Coil (Ferrite Bead), TEM2011
G402	23103859	Coil (Ferrite Bead), TEM2011
G403	23103859	Coil (Ferrite Bead), TEM2011
G404	23103859	Coil (Ferrite Bead), TEM2011
G430	23115532	Diode, ERB12-01E
G443	23115599	Diode, 1N4148 (32ZD09B)
G465	23316672	Diode, Zener, MTZJ5.6B
G484	24591152	PF, 1500pF
G510	23289838	Coil, Peaking, TRF44R7AT
G527	24503041	PF, 0.1μF, 63V
G528	24503041	PF, 0.1μF, 63V
G529	24503041	PF, 0.1μF, 63V
G638	24366222	CF, 2200 ohm
G684	23115599	Diode, 1N4148
G824	23222694	Coil, Choke, TLN2026
GA82	24085981	EL, 10μF, ±20%, 16V, Non-Polar (32ZD09G)
GC09	23261959	Coil, Choke, TRF9240
GC11	23261959	Coil, Choke, TRF9240
GF20	24000824	Chip Jumper, 2125Type (32ZD09G)
GF21	24000824	Chip Jumper, 2125Type (32ZD09G)
GF22	24000824	Chip Jumper, 2125Type (32ZD09G)
GF23	24000824	Chip Jumper, 2125Type (32ZD09G)
GF24	24000824	Chip Jumper, 2125Type (32ZD09G)
GF25	23103832	Chip (Ferrite Bead), TEM2125M (32ZD09G)
GF26	23103832	Chip (Ferrite Bead), TEM2125M (32ZD09G)
GF27	23103832	Chip (Ferrite Bead), TEM2125M (32ZD09G)
GF28	24000824	Chip Jumper, 2125Type (32ZD09G)
GF29	24000824	Chip Jumper, 2125Type (32ZD09G)
GF30	24000824	Chip Jumper, 2125Type (32ZD09G)
GF50	24000824	Chip Jumper, 2125Type (32ZD09G)
GG11	23103859	Coil (Ferrite Bead), TEM2011 (32ZD09G)
GJ02	24000824	Chip Jumper, 2125Type (32ZD09B)
GJ03	24000824	Chip Jumper, 2125Type (32ZD09G)
GJ04	24000824	Chip Jumper, 2125Type (32ZD09G)
GJ07	24000824	Chip Jumper, 2125Type (32ZD09B)
GJ09	24000824	Chip Jumper, 2125Type (32ZD09B)
GJ14	24000824	Chip Jumper, 2125Type
GJ15	24000824	Chip Jumper, 2125Type
GJ16	24000824	Chip Jumper, 2125Type
GJ17	24000824	Chip Jumper, 2125Type
GJ22	24000824	Chip Jumper, 2125Type
GJ23	24000824	Chip Jumper, 2125Type
GJ30	24000824	Chip Jumper, 2125Type
GS01	24000824	Chip Jumper, 2125Type
GV03	23103832	Chip (Ferrite Bead), TEM2125M
GV04	23103832	Chip (Ferrite Bead), TEM2125M
GV05	24872101	Chip, 100 ohm, 1/16W
GV06	23103832	Chip (Ferrite Bead), TEM2125M
GV07	24000824	Chip Jumper, 2125Type
GV08	24000824	Chip Jumper, 2125Type
GV11	24000824	Chip Jumper, 2125Type
GV35	24872101	Chip, 100 ohm, 1/16W
GV41	24872102	Chip, 1k ohm, 1/16W
H002	23148732	Module, MPSA11A, NICAM/IGR A-PRO A
KB01	23904946	Remote Sensor, RPM-676CBR-S
P004	23161702	Terminal, 8P
P402A	23902213	Socket, B-B, 10P
P402B	23368130	Plug, 10P

Location No.	Part No.	Description
P403A	23902213	Socket, B-B, 10P
P403B	23368130	Plug, 10P
P501A	23902650	Socket, B-B, 13P
P501B	23367722	Plug, B-B,13P
P502A	23902655	Socket, B-B, 15P
P502B	23367724	Plug, B-B,15P
P512A	23902863	Socket, 20P
P512B	23368520	Plug, B-B, 20P
P513A	23902863	Socket, 20P
P513B	23368520	Plug, B-B, 20P
P661	23363607	Jack, Headphone
⚠P801	23372052	Power Cord (32ZD09G)
⚠P801	23372151	Power Cord (32ZD09B)
PD04	23364092	Jack, Pin(Orange)
PD05	A5812240	IC, Optic Receiver, TORX176
PF01	23902655	Socket, B-B, 15P
PF01A	23367724	Plug, B-B,15P
PH01	23902604	Socket, 21P
PH02	23902604	Socket, 21P
PH03	23902604	Socket, 21P
PV01	23365450	Jack, 0S5P
PX01A	23902655	Socket, B-B, 15P
PX01B	23367724	Plug, B-B,15P
PX02A	23902781	Socket, B-B, 12P
PX02B	23368531	Plug, B-B, 12P
S601	23145355	Switch, Slide, 4C-2P
S631	23145412	Switch, Slide, 2C2P
⚠S801	23344416	Switch, Power
SA01	23145430	Switch, Push, 1C1P
SA02	23145430	Switch, Push, 1C1P
SA03	23145430	Switch, Push, 1C1P
SA04	23145430	Switch, Push, 1C1P
SA05	23145430	Switch, Push, 1C1P
SA06	23145430	Switch, Push, 1C1P
⚠SR82	23146572	Relay, DC5V, DG5D1-O(M)-2 (32ZD09G)
⚠SR83	23146570	Relay, DC12V
⚠V901A	23903150	Socket, CRT, 8P
W661	23351116	Speaker, SPK-1382, 60X120mm, 8 ohm
W662	23351116	Speaker, SPK-1382, 60X120mm, 8 ohm
W663	23351107	Speaker, SPK-1374, 60X120mm, 8 ohm
W664	23351107	Speaker, SPK-1374, 60X120mm, 8 ohm
X4401	23153721	Ceramic Resonator, 503kHz, TCR1023
X501	23153438	Crystal, 16.200MHz
XA01	23153497	Crystal, 16.0 MHz (32ZD09B)
XA03	23153394	Crystal, 16.000000MHz (32ZD09G)
XF01	23153421	Crystal, 20.48MHz
XF02	23153394	Crystal, 16.000000MHz (32ZD09G)
Z420	23144539	Protector, PRF20005491, 125V, 2A
Z871	23144543	Protector, PRF50005491, 125V, 5A
Z890	23144543	Protector, PRF50005491, 125V, 5A
Z891	23144543	Protector, PRF50005491, 125V, 5A
Z894	23144539	Protector, PRF20005491, 125V, 2A
Z896	23144539	Protector, PRF20005491, 125V, 2A
Z897	23144539	Protector, PRF20005491, 125V, 2A (32ZD09G)
Z897	23144536	Protector, PRF10005491, 125V, 1A (32ZD09B)
Z898	23144539	'Protector, PRF20005491, 125V, 2A
ZG01	23144450	Protector, PRF2000F008 (32ZD09G)
ZX101	23103852	Filter, TEM2028AH
ZX201	23103823	Filter, TEM2027D
ZX202	23103823	Filter, TEM2027D
ZX321	23103823	Filter, TEM2027D
ZX341	23103823	Filter, TEM2027D
ZX361	23103823	Filter, TEM2027D
ZX401	23303181	Filter, TEM1012N
ZX402	23303181	Filter, TEM1012N

PC BOARD ASSEMBLIES

* U102A	23784877	BACK-T(CH) Board, PB9509A-1
* U102B	23784888	DIGITAL-IN(CH) Board, PB9509A-2
* U103	23784878	D-COMB&MCD(CH) Board, PB9510A
* U104A	23784879	EPG-TEXT(CH)VER.2 Board, PB9511A (32ZD09G)
* U104A	23784365	EPG-TEXT(CH)VER.2 Board, PB9411B (32ZD09B)
* U105	23784880	DFS(CH) VER.4 Board, PB9512A
* U901	23785996	CRT Drive/DSM Board, PD0010A
* U902	23708328	Signal Board, PB9514G (32ZD09G)
* U902	23708329	Signal Board, PB9514H (32ZD09B)
* U903	23785997	Power Board, PB9515J (32ZD09G)
* U903	23786003	Power Board, PB9515H (32ZD09B)
* U904	23785998	DEF Board, PB9516B
* U905	23786001	EW100HZ Board, PB9517C
* U906A	23784886	CONT-1 Board, PB9518A-1 (32ZD09G)
* U906A	23784997	CONT-1 Board, PB9518B-1 (32ZD09B)
* U906B	23784887	CONT-2 Board, PB9518A-2 (32ZD09G)
* U906B	23784998	CONT-2 Board, PB9518B-2 (32ZD09B)

PICTURE TUBE

⚠V901	23312914	Picture Tube, W76LTL350X96

TUNER

H001	23321344	Tuner, EGA22LWX (32ZD09G)
H001	23321345	Tuner, UF822BLW (32ZD09B)

ACCESSORIES

K902	23306364	Remote Hand Unit, CT-90041 (32ZD09G)

Location No.	Part No.	Description
K902	23306365	Remote Hand Unit, CT-90042 (32ZD09B)
AT03	23588265	Battery Cover
Y101	23563926	Owner's Manual, English, 32ZD09G
Y101	23563946	Owner's Manual, English, 32ZD09B
Y102	23563927	Owner's Manual, French, 32ZD09G
Y102	23561801	Owner's Manual, French, 32ZD09B
Y103	23563928	Owner's Manual, German, 32ZD09G
Y104	23563929	Owner's Manual, Itarian, 32ZD09G
Y105	23563930	Owner's Manual, Spanish, 32ZD09G

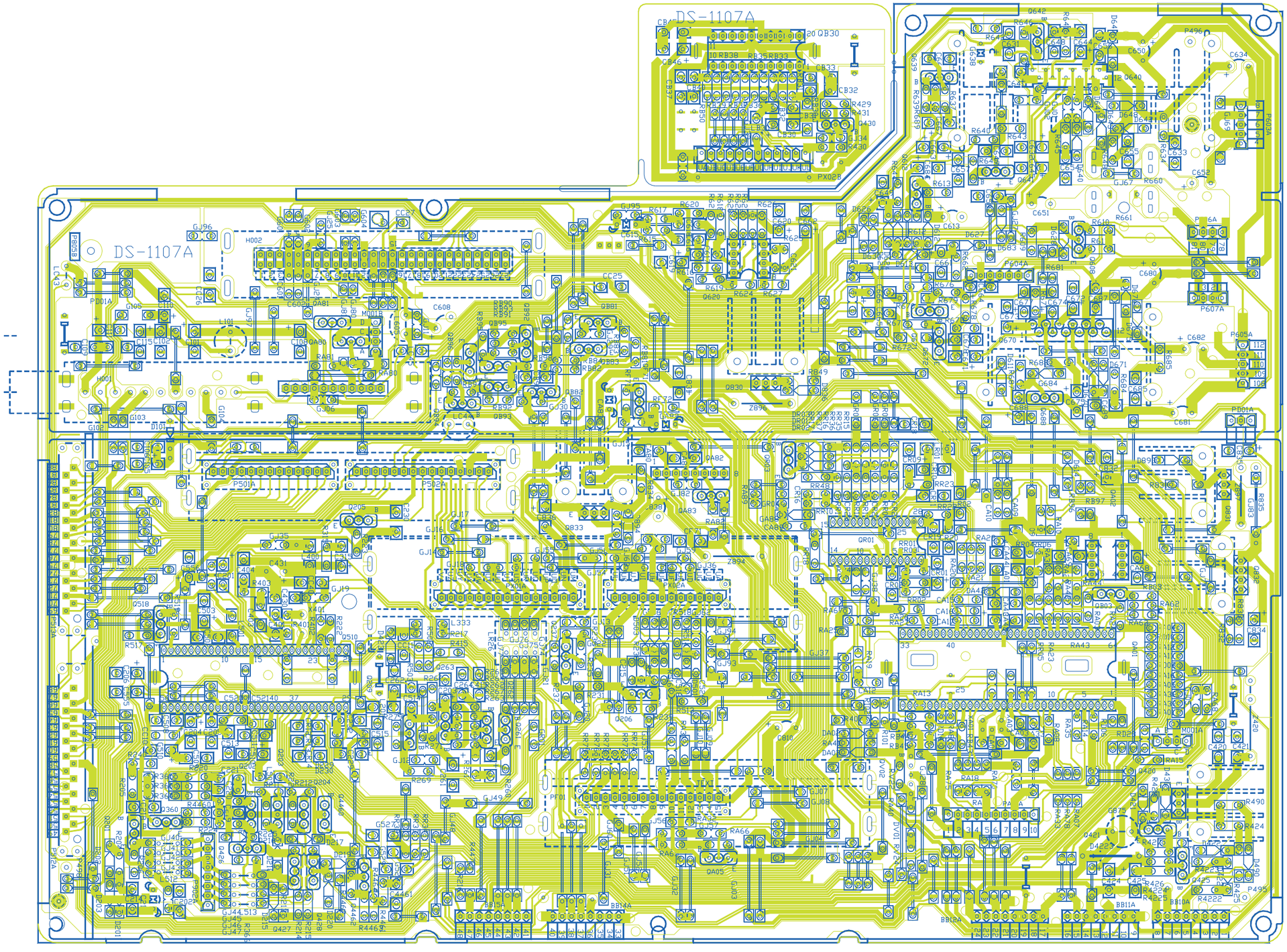
CABINET PARTS

A214	23035412	Screw, BTB4X12SZN
A215	23035412	Screw, BTB4X12SZN
A241	70368125	Push Catch for Door
⚠A401	23549286	Back Cover
A701	23525882	Case
A702	23946038	Packing, Bottom
A703	23946037	Packing, Top

Location No.	Part No.	Description

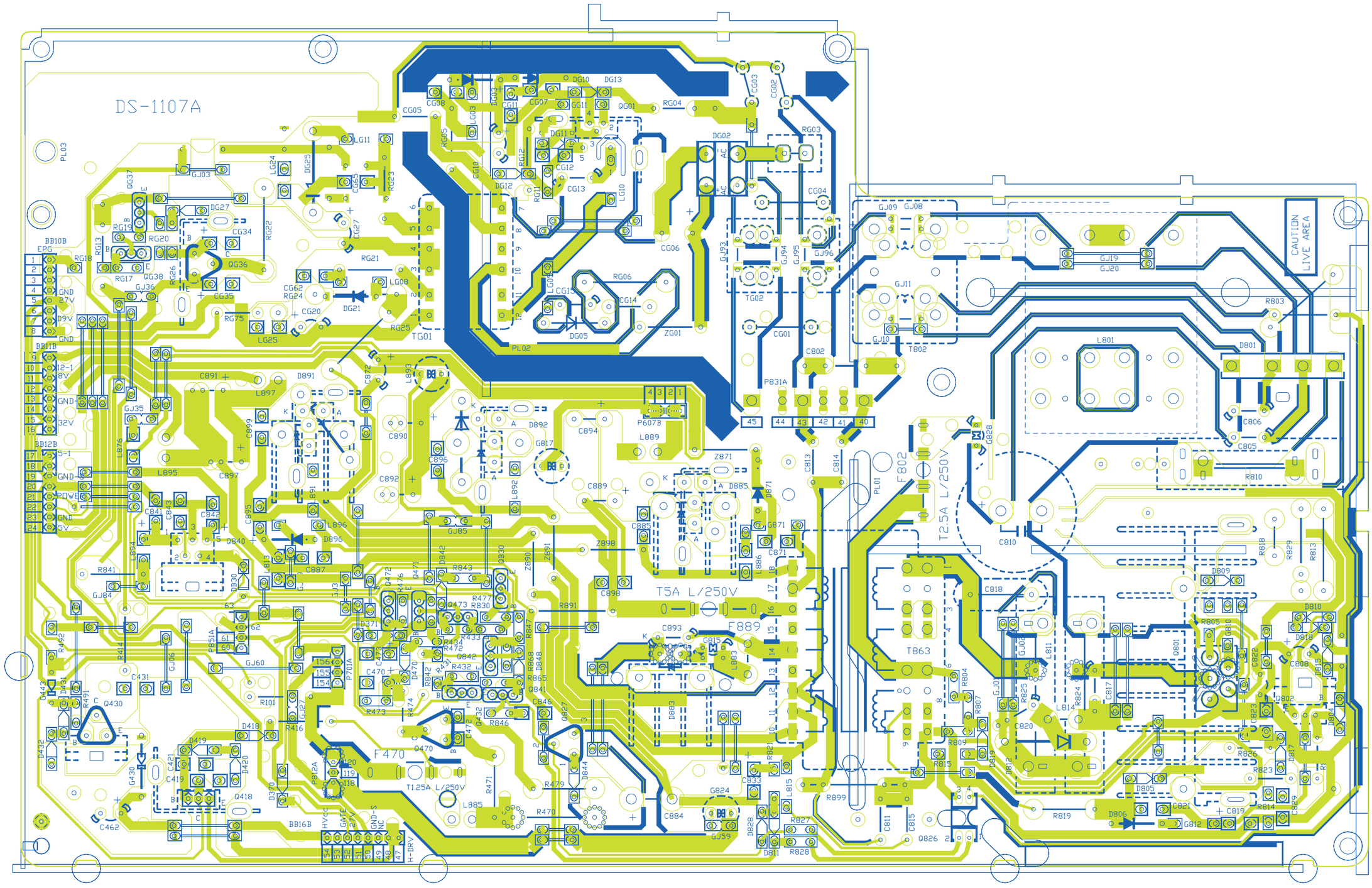
SIGNAL BOARD PB9514G-1
SIGNAL BOARD PB9514H-1

BOTTOM (FOIL) SIDE



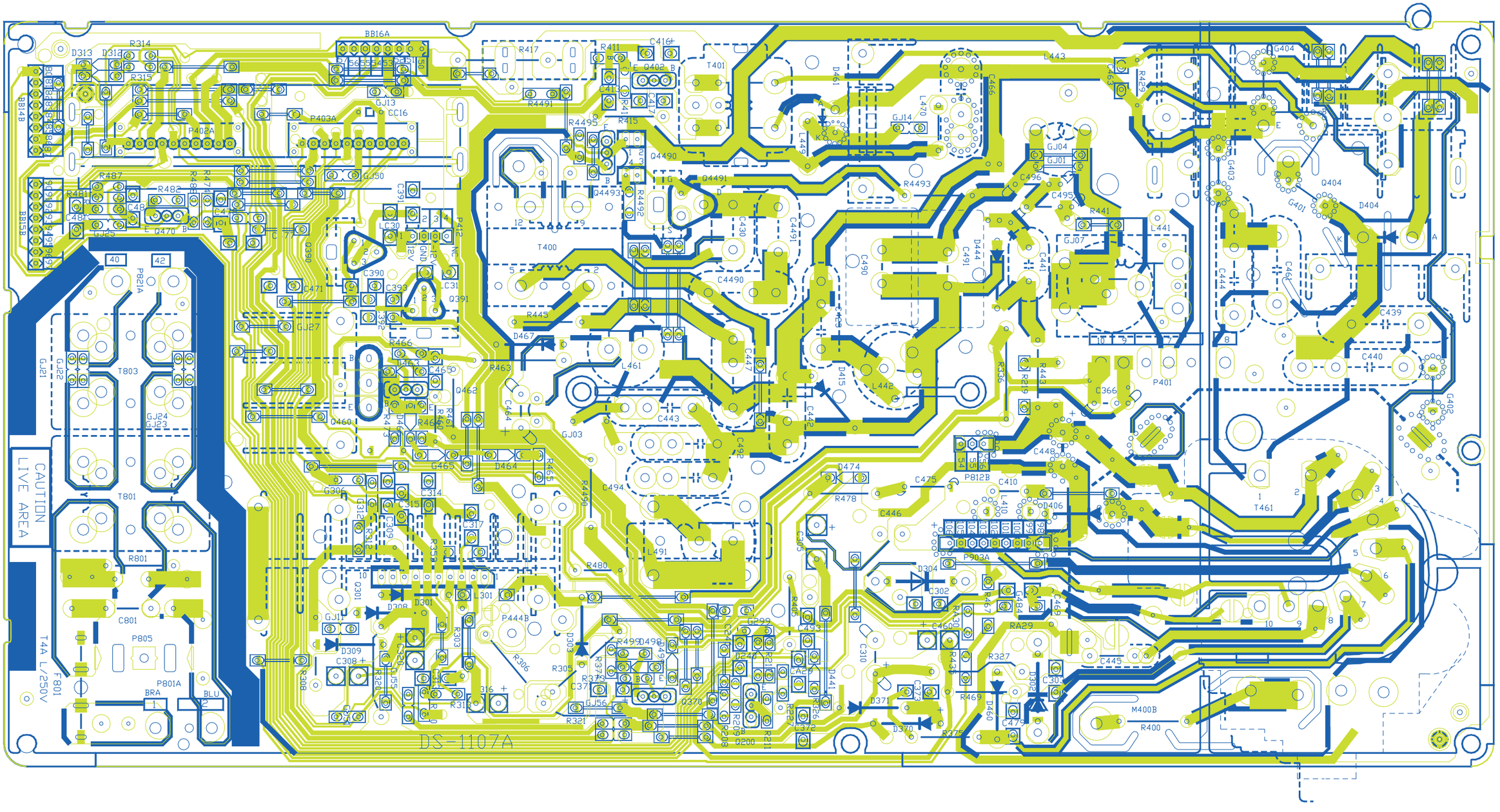
POWER BOARD PB9515J
POWER BOARD PB9515H

BOTTOM (FOIL) SIDE



DEF BOARD PB9516B

BOTTOM (FOIL) SIDE


CAUTION
LIVE AREA
T4A L/250V
F801
P801A
BRA
BLU
P805
C801
R801
T801
GJ24
GJ23
GJ21
GJ22
T803
P821A
40
42
BB16A
BB14B
BB15B
P402A
P403A
R314
R315
R487
R481
R482
C481
C480
GJ25
GJ50
GJ13
CC16
E Q470 B
C471
C390
C393
C391
Q391
GJ27
R466
Q462
Q460
R463
D467
R445
T400
R4491
R4495
Q4490
Q4491
Q4493
R4492
R417
R411
C416
C411
C417
R415
Q402 B
T401
D461
L470
GJ14
L449
C466
C464
L443
R429
G404
G403
G401
Q404
D404
C439
C440
C441
C444
C464
GJ04
GJ01
C496
C495
R441
L441
GJ07
R4493
C430
C4491
C490
C4490
D444
C491
C428
C447
L461
L442
D415
R336
R443
R445
C366
P401
C443
C492
GJ03
R465
R4650
D464
G465
C494
C314
C315
C317
C309
R312
G306
G312
R356
C301
P444B
R480
L491
D474
R478
C475
C446
C365
P812B
C410
L410
D406
P903A
D304
C302
C460
C469
G484
RA29
R327
C445
C304
R469
D460
C479
M400B
R400
1
2
T461
D301
D308
D309
C308
GJ11
R308
R306
D303
R305
R321
R499
D498
R498
R497
R495
C497
C498
GJ29
R240
R241
R242
R243
R244
R245
R246
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R292
R293
R294
R295
R296
R297
R298
R299
R2200
C2200
C2201
C2202
C2203
C2204
C2205
C2206
C2207
C2208
C2209
C2210
C2211
C2212
C2213
C2214
C2215
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C2221
C2222
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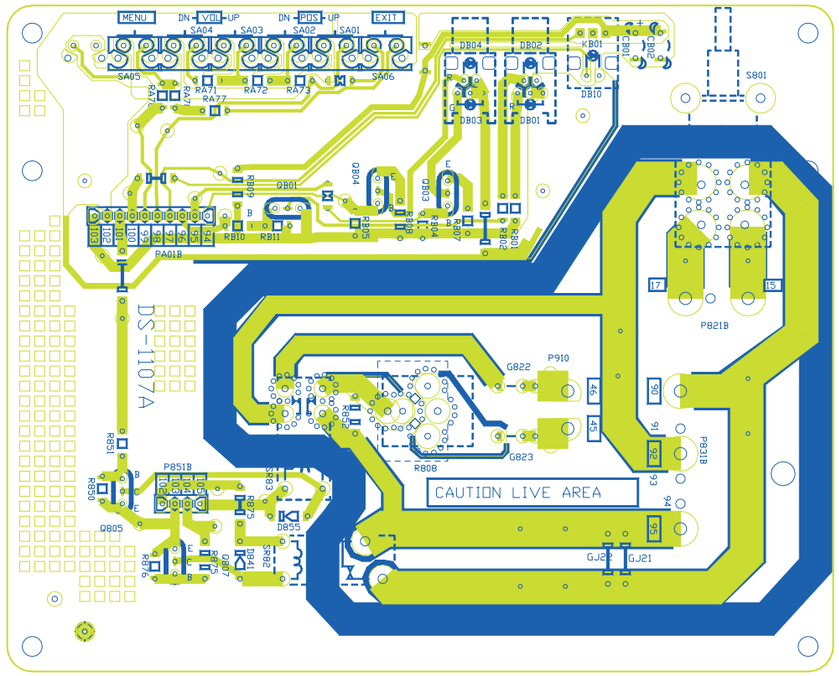
C2228
C2229
C2230
C2231
C2232
C2233
C2234
C2235
C2236
C2237
C2238
C2239

CONT-1 BOARD PB9518A-1
CONT-1 BOARD PB9518B-1

BOTTOM (FOIL) SIDE



CONT-2 BOARD PB9518A-2
CONT-2 BOARD PB9518B-2

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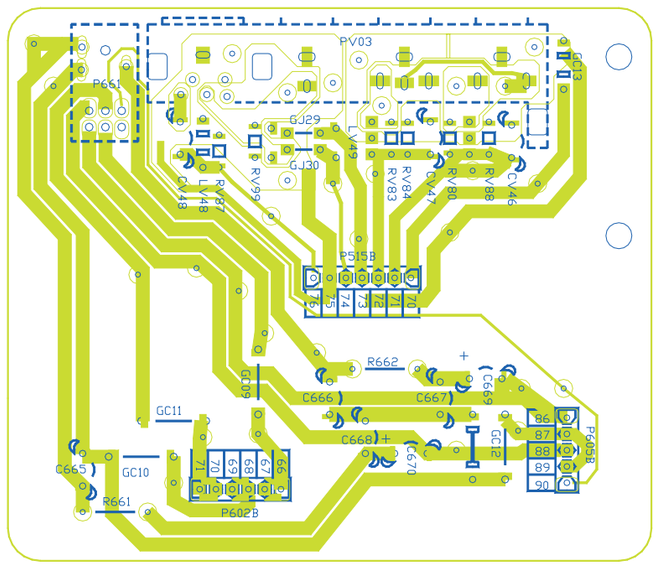

DIGITAL-IN BOARD PB9509A-2

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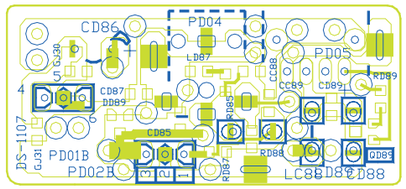

DIGITAL-IN BOARD PB9509A-1

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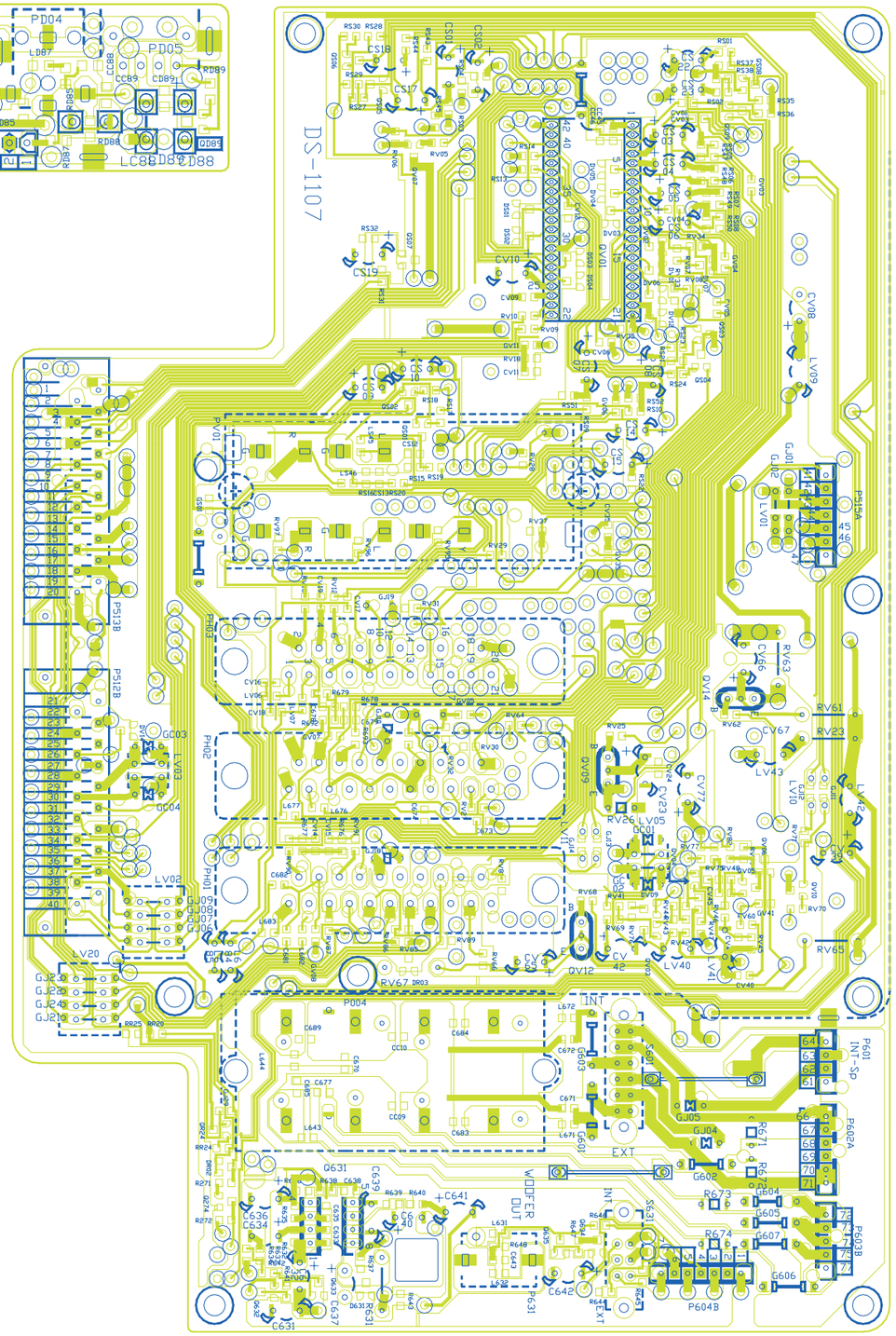
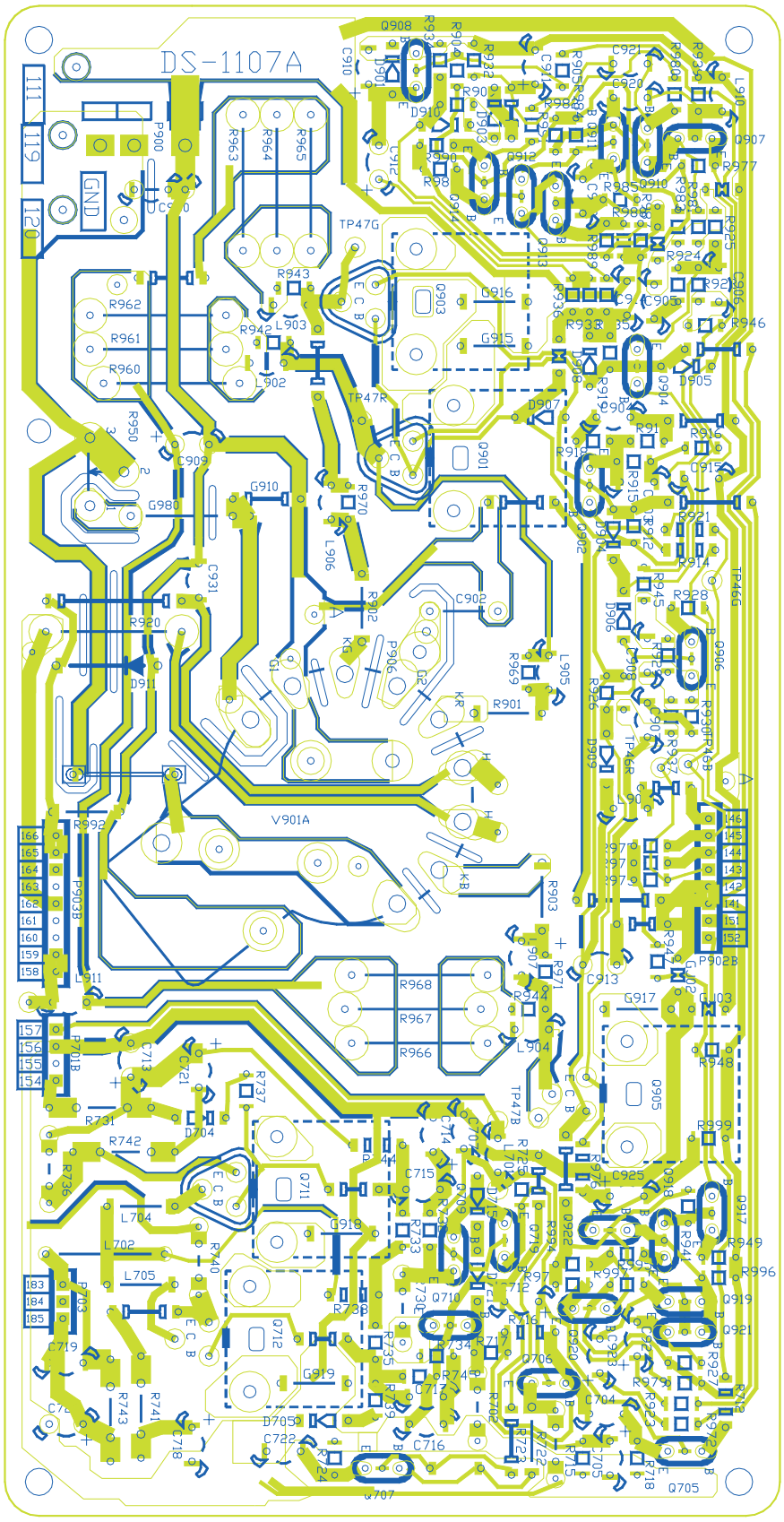


CRT DRIVE/DSM BOARD PD0010A

BOTTOM (FOIL) SIDE



DFS BOARD PB9512A

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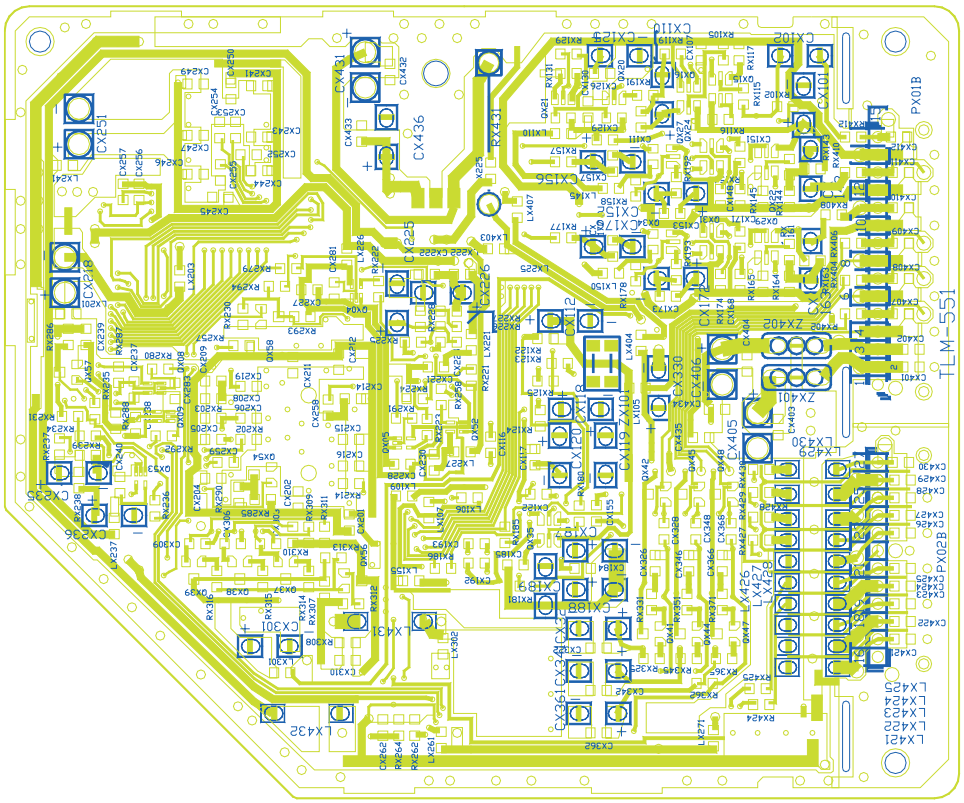
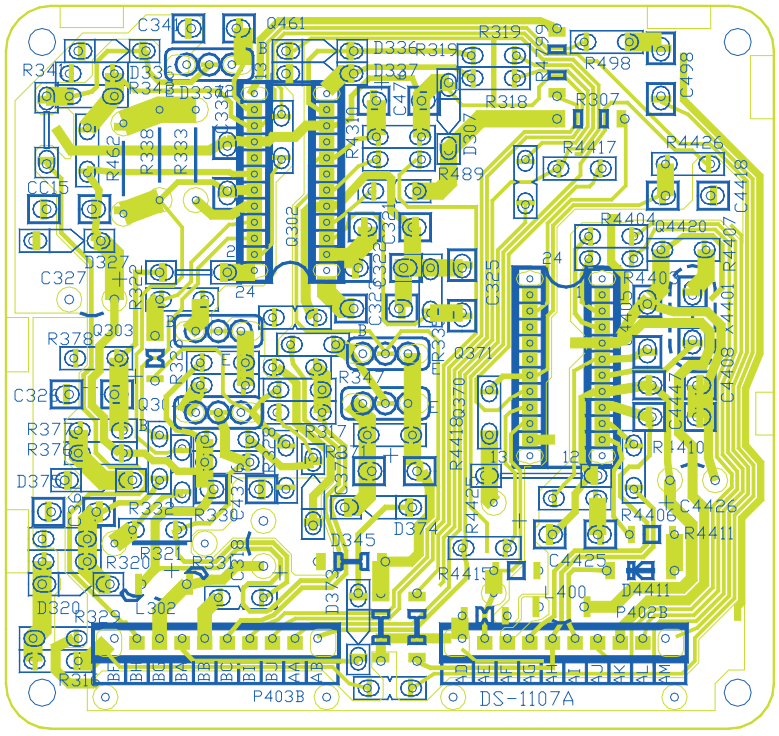


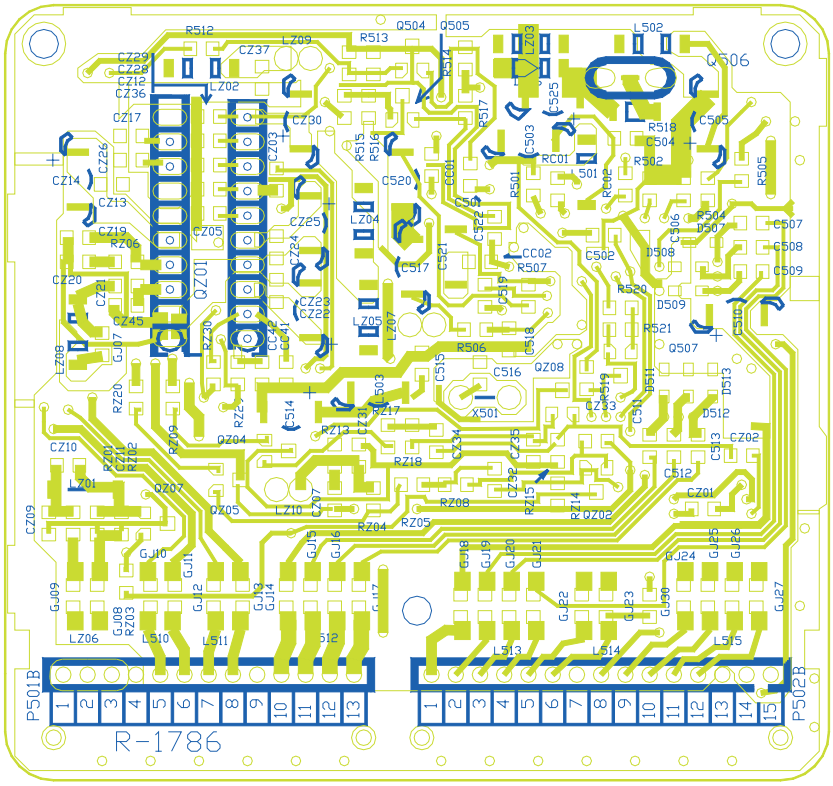
EW100Hz BOARD PB9517C

BOTTOM (FOIL) SIDE



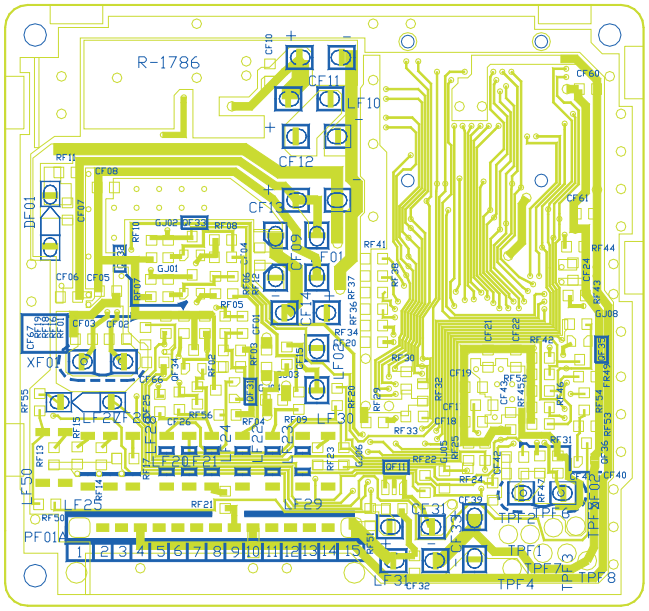
D-COMB BOARD PB9510A

BOTTOM (FOIL) SIDE



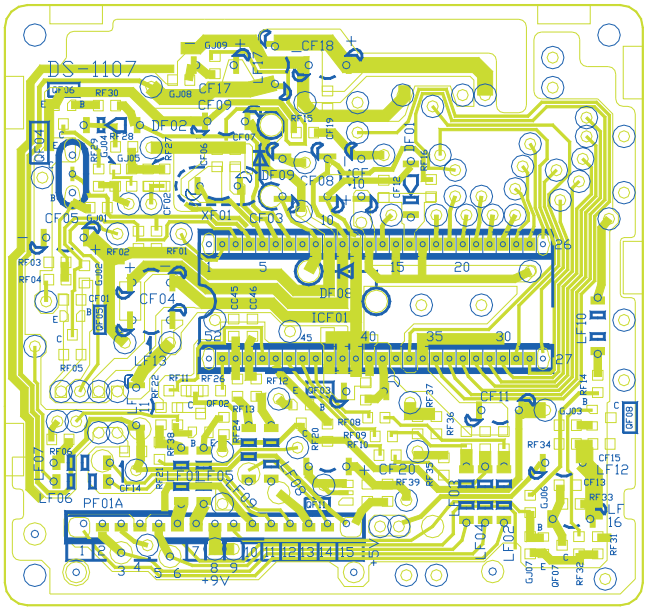
EPG-TEXT BOARD PB9511A

BOTTOM (FOIL) SIDE



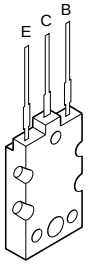
EPG-TEXT BOARD PB9411A

BOTTOM (FOIL) SIDE

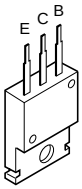


TERMINAL VIEW OF TRANSISTORS

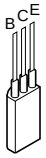
① 2SD2253
(old)
2SC5243
2SC5570



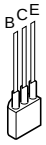
② 2SC3852
2SD1763A
2SC1569
2SC4544
2SA1788
2SA1306
2SA1186A



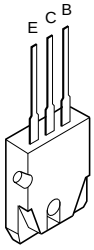
③ 2SC752GTM
2SC2482
2SC2655
2SC4721P



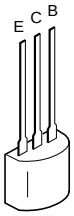
④ 2SC752
2SA562TM
2SA1015
2SC1815
2SC2878
2SC1740S
2SC2120
2SA9335



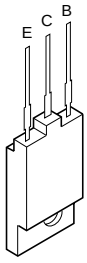
⑤ 2SA1788



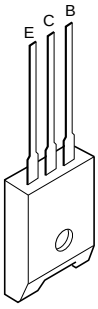
⑥ RN2203
RN2201
RN2004
RN1203
RN1204
RN2204
RN1205
RN1202
RN1201



⑦ 2SD1554
2SD2253
2SD1556
2SC5143
2SD2553



⑧ ON4409



SPECIFICATIONS (Representative: 32ZD09G)

Input Power Rating: AC 220 ~ 240 Volts, 50 Hz

Aerial Input Impedance: 75 ohm unbalanced type for VHF, UHF and CATV

Receiving Channels:

System	Channel	VHF	UHF	CATV	
PAL B/G	CCIR	2 ~ 12	21 ~ 69	S1 ~ S41	X ~ Z + 2,
SECAM B/G	CCIR	2 ~ 12	21 ~ 69	S1 ~ S41	X ~ Z +2,
PAL D/K	CHINA	1 ~ 12	13 ~ 57	Z-1 ~ Z-35	
PAL I	UK		21 ~ 69		
SECAM D/K	OIRT	1 ~ 12	21 ~ 69	X-1 ~ X-19	
SECAM L	FRANCE/CCIR	FB ~ F6	21 ~ 69	X ~ Z + 2	S1 ~ S41

PAL, SECAM 50 Hz/60 Hz (For Video Disk play back)
4.43 NTSC (For VCR playback), 3.58 NTSC (For VCR playback)

Intermediate Frequencies:
Picture I-F carrier frequency ..... 38.9 MHz (L VL)
Sound I-F carrier frequency
B/G System ..... 33.4 MHz
D/K System ..... 32.4 MHz

Picture Tube: 32 inches, 760 mm (measured on diagonal of viewable picture area)
106° deflection

Sound Output: 10 W + 10 W (at 10% Distortion, Main), 10 W (at 10% Distortion, Center)
10 W + 10 W (at 10% Distortion, Surround)

Speakers: 60 mm × 120 mm oval, 2 pcs (Main), 60 mm × 120 mm oval, 2 pcs (Center)

Aux. Terminals: 21 pin socket (FULL), 21 pin socket (S-VIDEO/AV), MONITOR OUTPUT, STEREO HEADPHONE JACK (3.5mm).
DVD Terminal

Cabinet: Table type

Dimensions:
Height ..... 574 mm
Width ..... 918 mm
Depth ..... 560 mm

Mass: 60.0 kg

* Please refer to owner's manual in detail.

TOSHIBA CORPORATION
1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001, JAPAN

SCHEMATIC DIAGRAM MODEL : 32ZD09G / 32ZD09B (1/7)

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on page 3. Do not degrade the safety of the receiver through improper servicing.

OBSERVATION OF VOLTAGES AND WAVEFORMS

1. Voltages read with VTVM from point shown to chassis ground, line voltage 220 volts, colour bar signal. Voltages reading may vary ±20%.
2. All waveforms are taken using a wide band oscilloscope and a low capacity probe.
3. Waveforms are taken using a standard colour bar signal.
4. Make sure that CONTRAST and COLOUR controls are in mid position and BRIGHTNESS control is almost in maximum position. Set other controls for best picture.

NOTES:

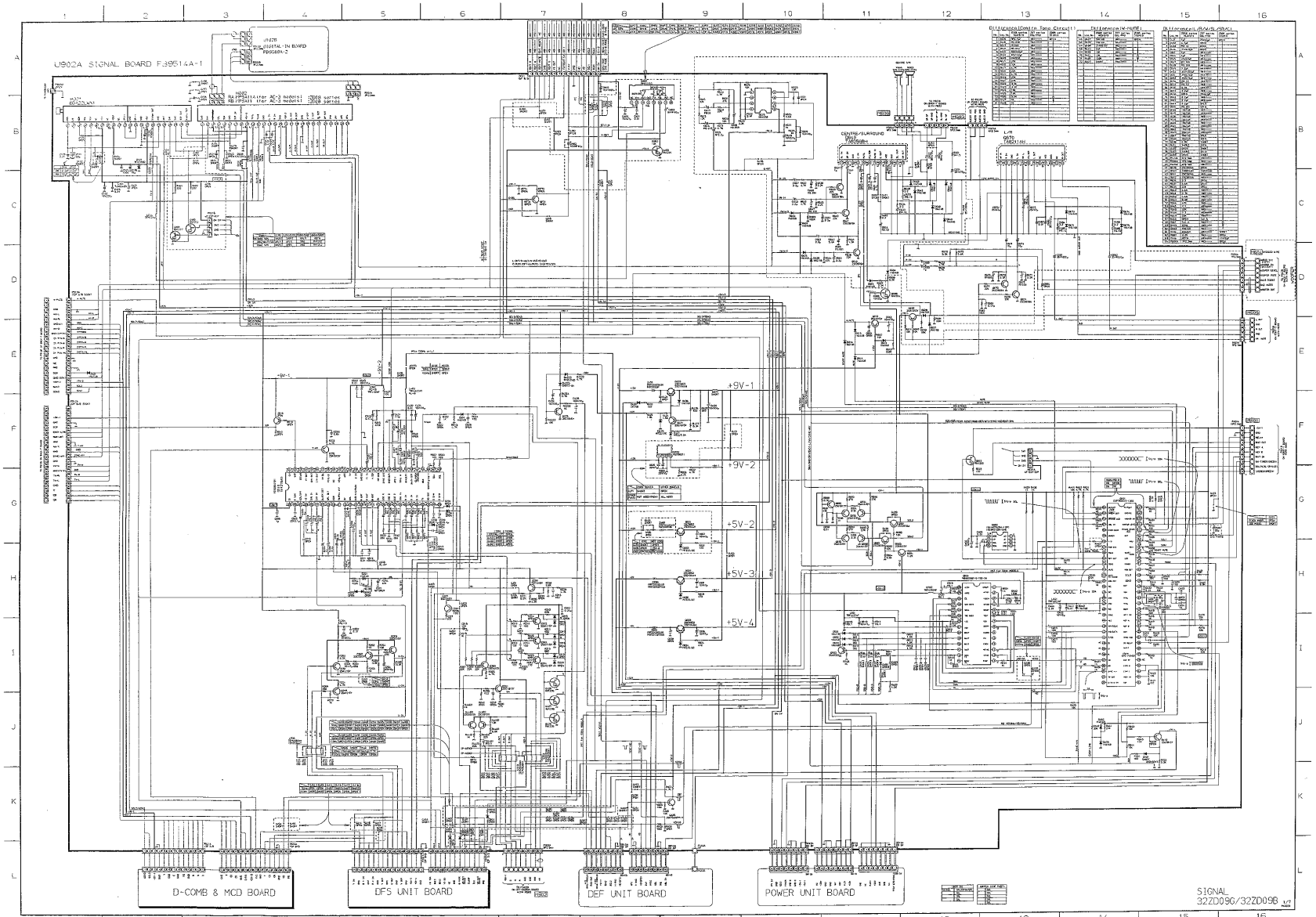
1. D.C. resistance value of a principal transformer is shown in this schematic diagram. These are measured for separated from the circuit.
2. The circuits are subject to change without notice.
3. ◆ : Solder links.

EXPRESSION

VALUE OF RESISTOR, CAPACITOR and INDUCTOR

1. Resistance is shown in ohm, k=1,000, M=1,000,000
2. Unless other wise noted in schematic, all capacitor values less than 1 are expressed in μF and the values more than 1 in pF.
3. Unless otherwise noted in schematic, all inductor values more than 1 are expressed in μH, and the values less than 1 in H.

30200101



SCHEMATIC DIAGRAM MODEL : 32ZD09G / 32ZD09B (1/7)

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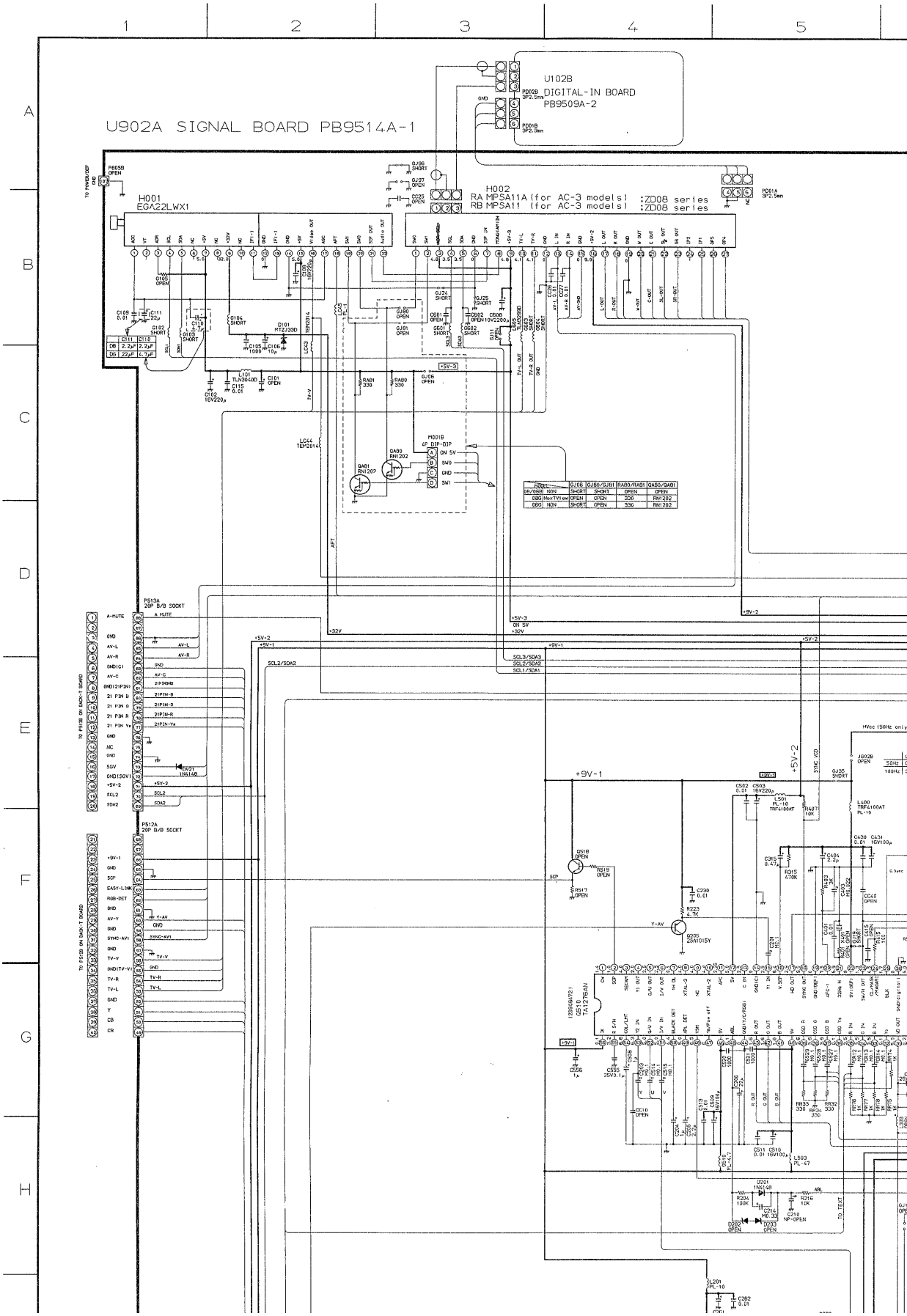
OBSERVATION OF VOLTAGES AND WAVEFORMS

1. Voltages read with VTVM from point shown to c
volts, colour bar signal. Voltages reading may v
2. All waveforms are taken using a wide band oscillo
3. Waveforms are taken using a standard colour ba
4. Make sure that CONTRAST and COLOUR cor
BRIGHTNESS control is almost in maximum pos
picture.

30200101



TAGES AND WAVEFORMS

TVM from point shown to chassis ground, line voltage 220
al. Voltages reading may vary ±20%.
en using a wide band oscilloscope and a low capacity probe.
using a standard colour bar signal.
ITRAST and COLOUR controls are in mid position and
is almost in maximum position. Set other controls for best

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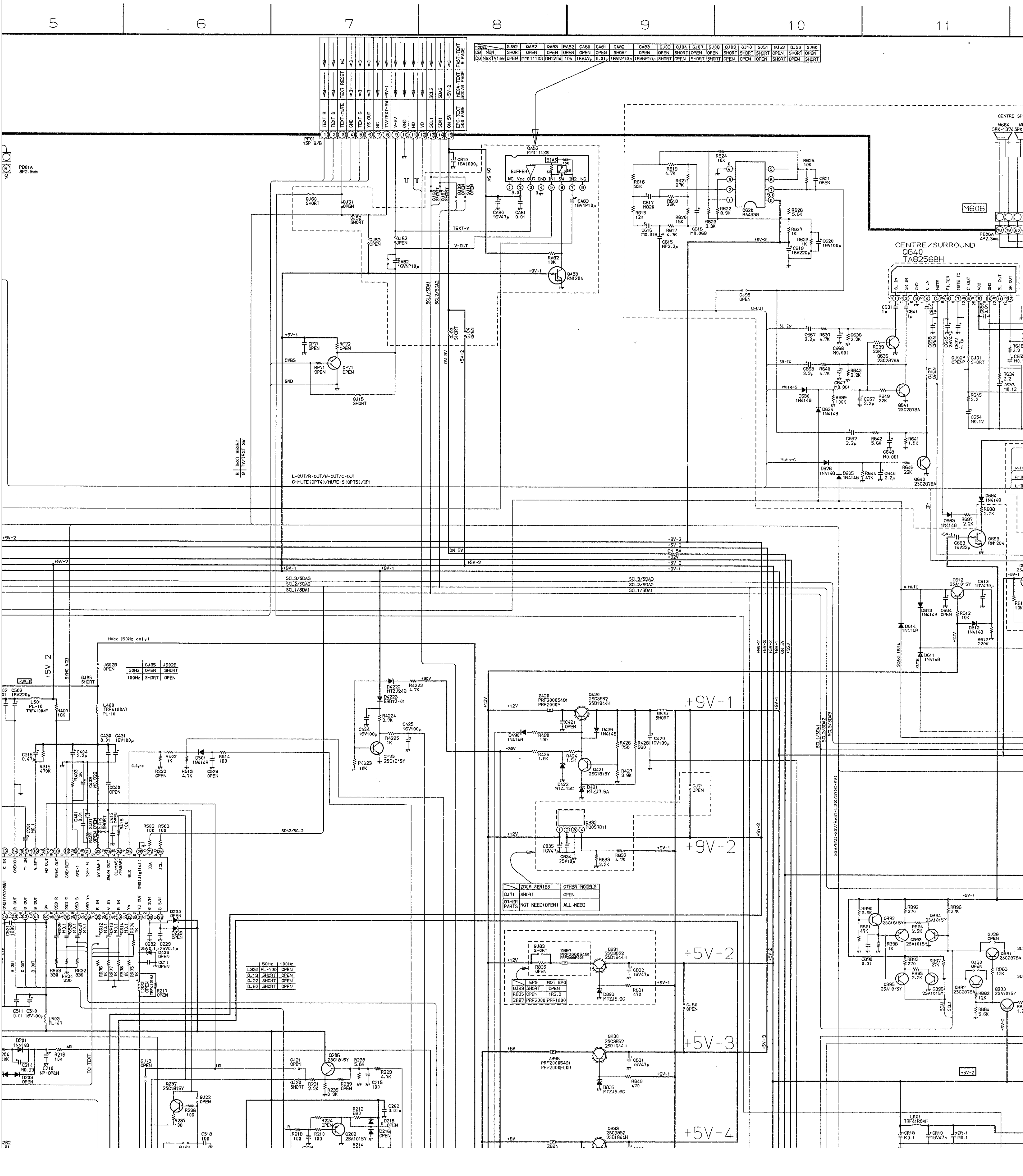

MODEL		GJ82	QA82	QA83	RA82	CA80	CA81	GA82	CA83	GJ03	GJ04	GJ07	GJ08	GJ09	GJ10	GJ51	GJ52	GJ53	GJ60
DB	NON	SHORT	OPEN	OPEN	OPEN	OPEN	OPEN	SHORT	OPEN	OPEN	SHORT	OPEN	OPEN	SHORT	SHORT	SHORT	OPEN	SHORT	OPEN
DG	NexTView	OPEN	MM1111XS	RN1204	10k	16V47μ	0.01μ	16VNP10μ	16VNP10μ	SHORT	OPEN	SHORT	SHORT	OPEN	OPEN	OPEN	SHORT	OPEN	SHORT

	GJ35	J602B
50Hz	OPEN	SHORT
100Hz	SHORT	OPEN

	50Hz	100Hz
L333	PL-100	OPEN
GJ13	SHORT	OPEN
GJ22	SHORT	OPEN
GJ62	SHORT	OPEN

	ZD06 SERIES	OTHER MODELS
GJ71	SHORT	OPEN
OTHER PARTS	NOT NEED(OPEN)	ALL NEED

	EPG	NOT EPG
GJ83	SHORT	OPEN
R835	OPEN	1R2.2
Z897	PRF2000	PRF1000

EXPRESSION

VALUE OF RESISTOR, CAPACITOR and INDUCTOR

schematic dia-

1. Resistance is shown in ohm, k=1,000, M=1,000,000
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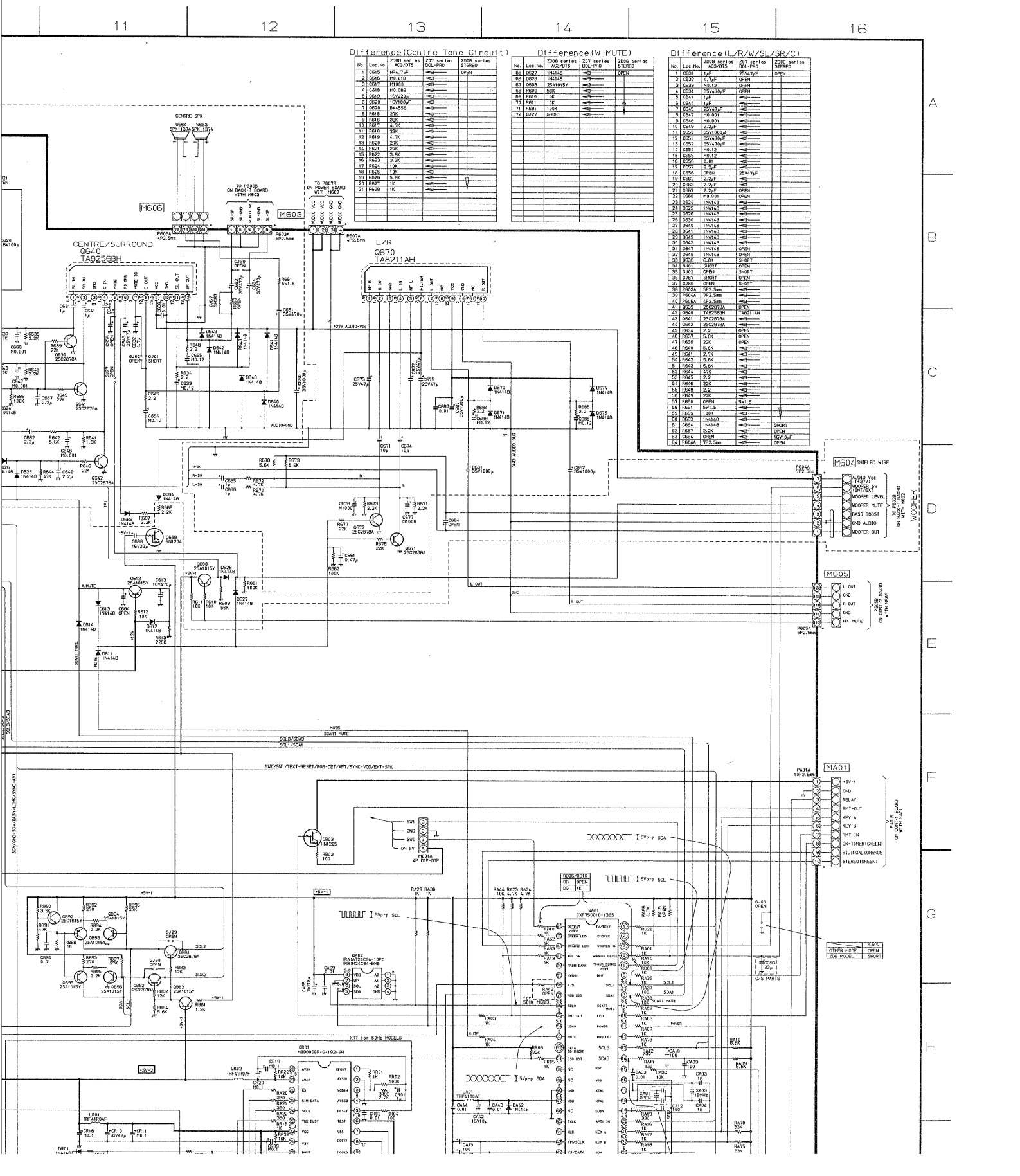
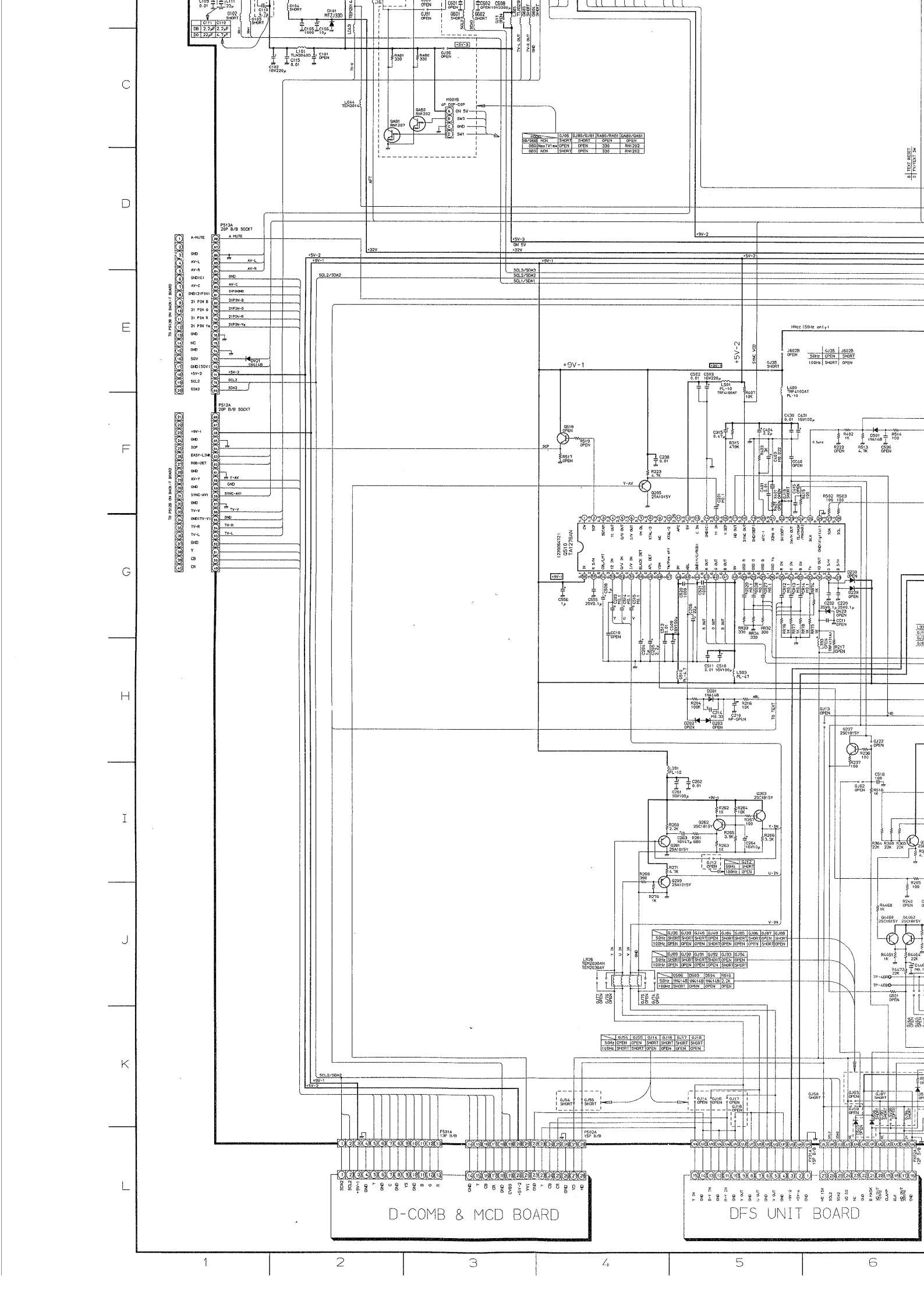
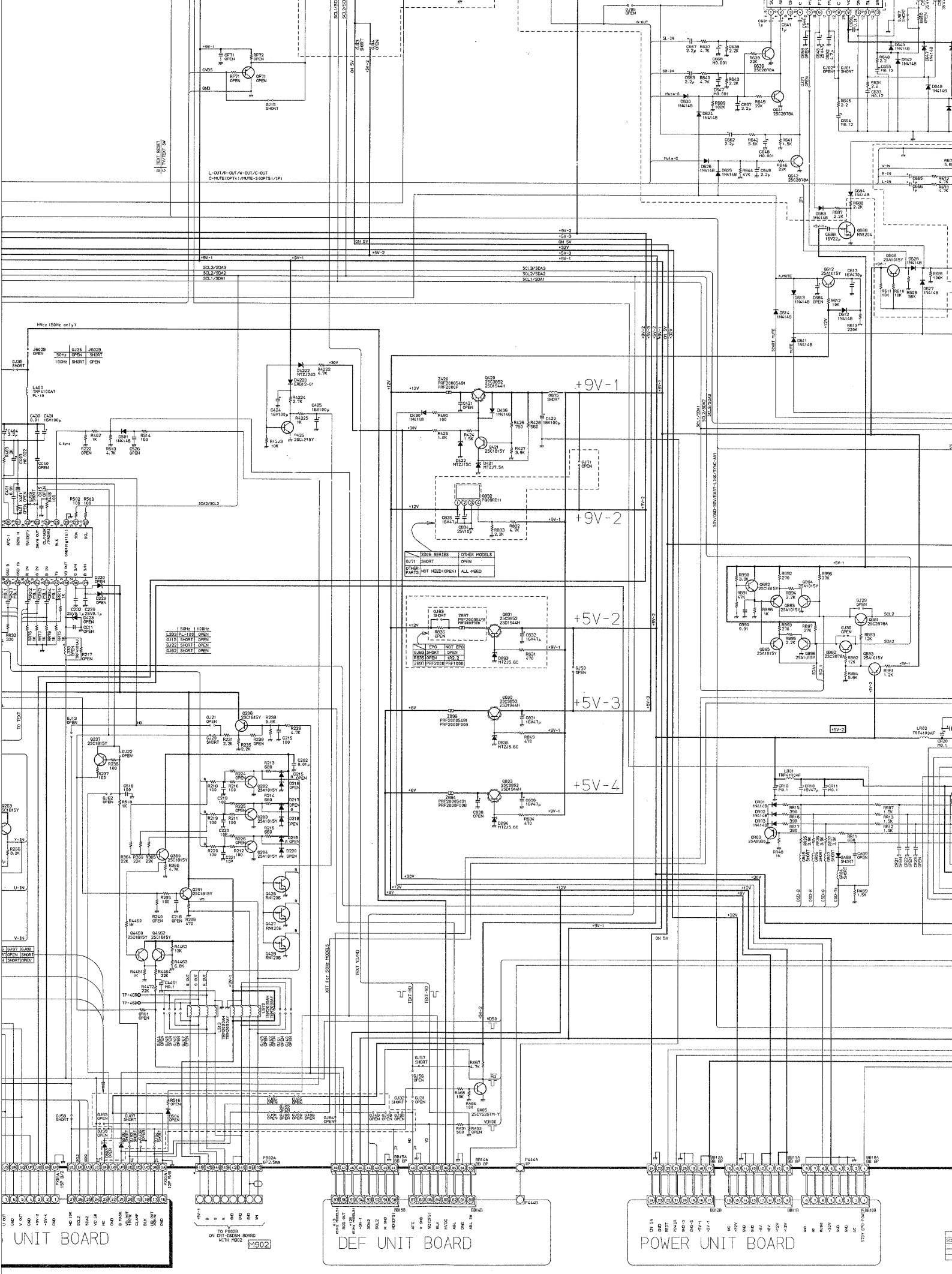
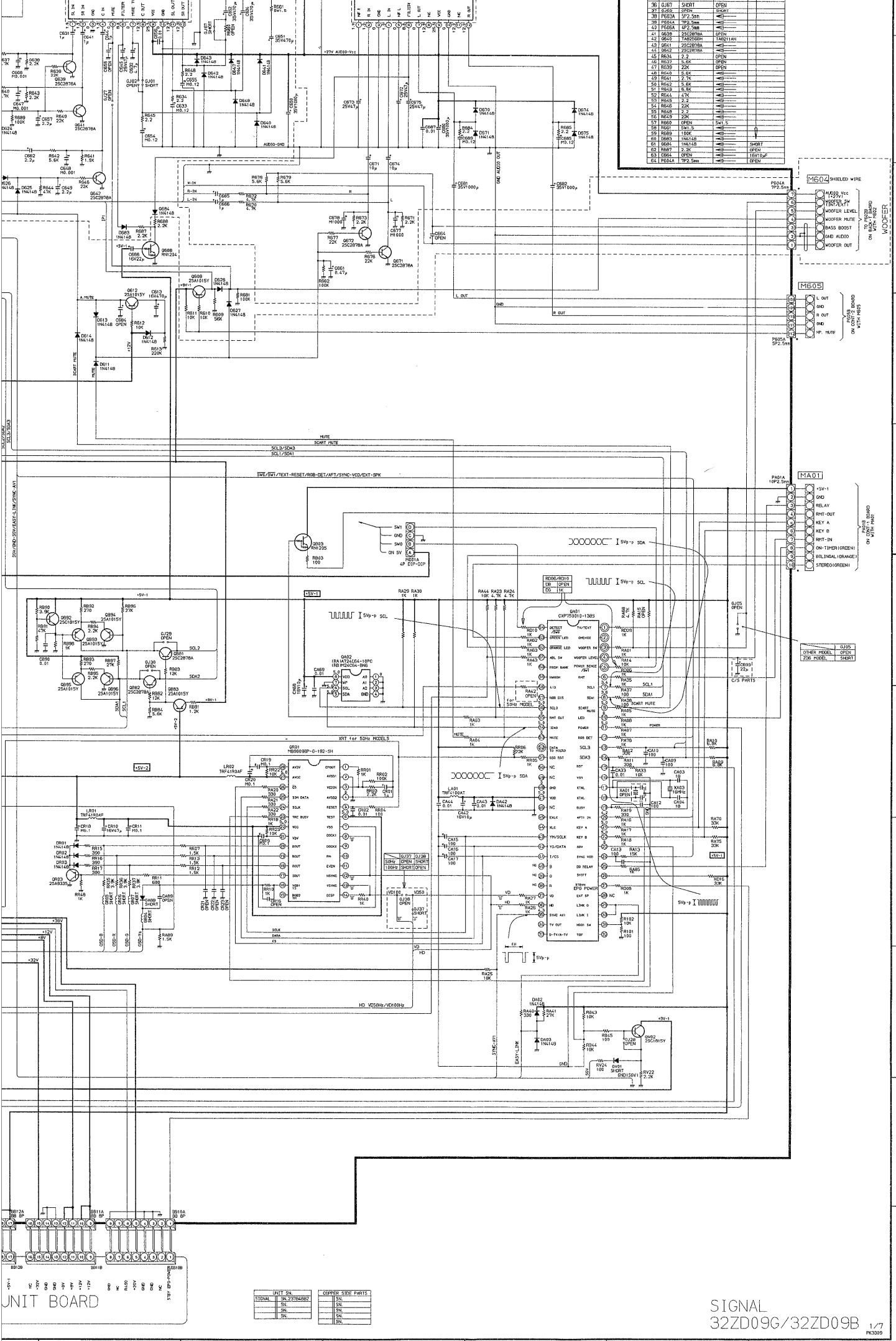



D-COMB & MCD BOARD
DFS UNIT BOARD


+9V-1
+9V-2
+5V-2
+5V-3
+5V-4
DEF UNIT BOARD
POWER UNIT BOARD
UNIT BOARD
6
7
8
9
10
11



36	GJ67	SHORT	
37	GJ69	OPEN	SHORT
38	P603A	5P2.5mm	
39	P604A	7P2.5mm	
40	P605A	6P2.5mm	
41	Q639	2SC2878A	OPEN
42	Q640	TAB2518H	TAB211AH
43	Q641	2SC2878A	
44	Q642	2SC2878A	
45	R634	2.2	OPEN
46	R637	5.6K	OPEN
47	R639	22K	OPEN
48	R640	5.6K	
49	R641	2.7K	
50	R642	5.6K	
51	R643	5.6K	
52	R644	47K	
53	R645	2.2	
54	R646	22K	
55	R648	2.2	
56	R649	22K	
57	R660	OPEN	5WT.5
58	R661	5WT.5	0
59	R689	100K	
60	D683	1N4148	
61	Q684	1N4148	SHORT
62	R687	2.2K	OPEN
63	C664	OPEN	16V1.0uF
64	P604A	7P2.5mm	OPEN

UNIT SN.	
SIGNAL	SN.23784882
	SN.
	SN.
	SN.

COPPER SIDE PARTS
SN.
SN.
SN.
SN.
SN.

11	12	13	14	15	16	
A	B	C	D	E	F	G
H	I	J	K	L		

SCHEMATIC DIAGRAM MODEL : 32ZD09G / 32ZD09B (2/7)

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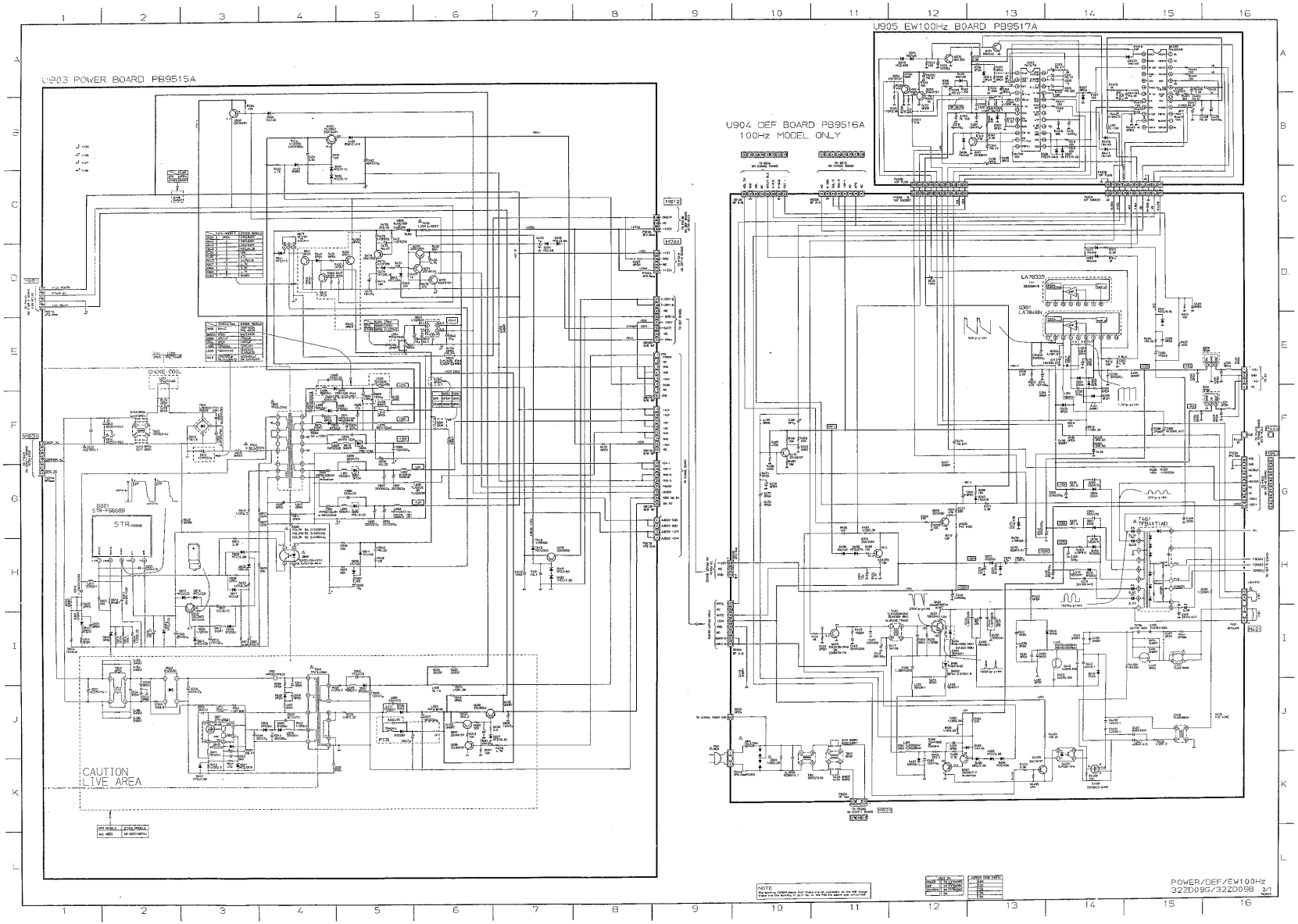
30200101



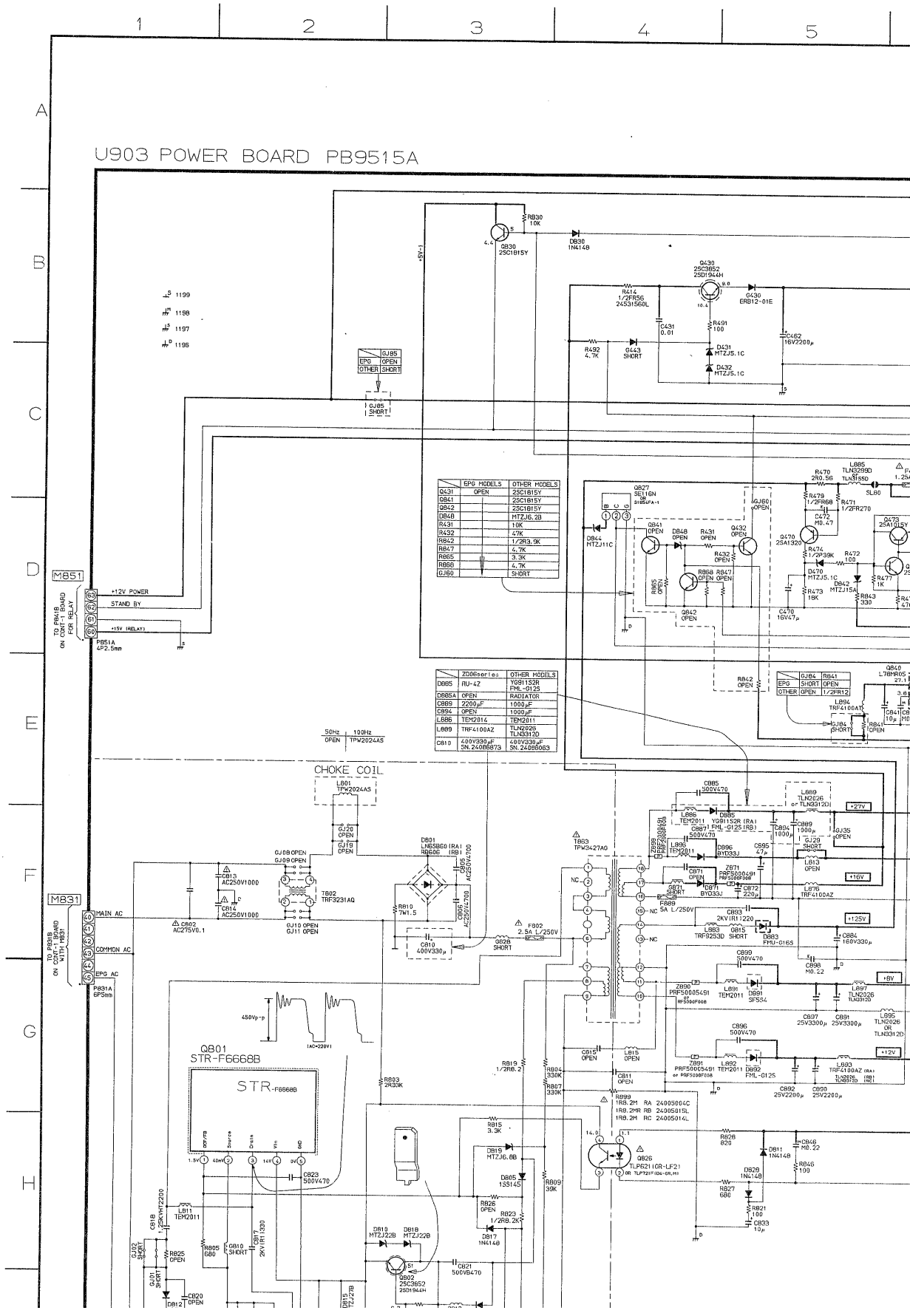
SCHEMATIC DIAGRAM MODEL : 32ZD09G / 32ZD09B (2/7)

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on page 3. Do not degrade the safety of the receiver through improper servicing.

OBSERVATION OF VOLTAGES AND WAVEFORMS

1. Voltages read with VTVM from point shown to
volts, colour bar signal. Voltages reading may
2. All waveforms are taken using a wide band oscill
3. Waveforms are taken using a standard colour b
4. Make sure that CONTRAST and COLOUR co
BRIGHTNESS control is almost in maximum pos
picture.

30200101

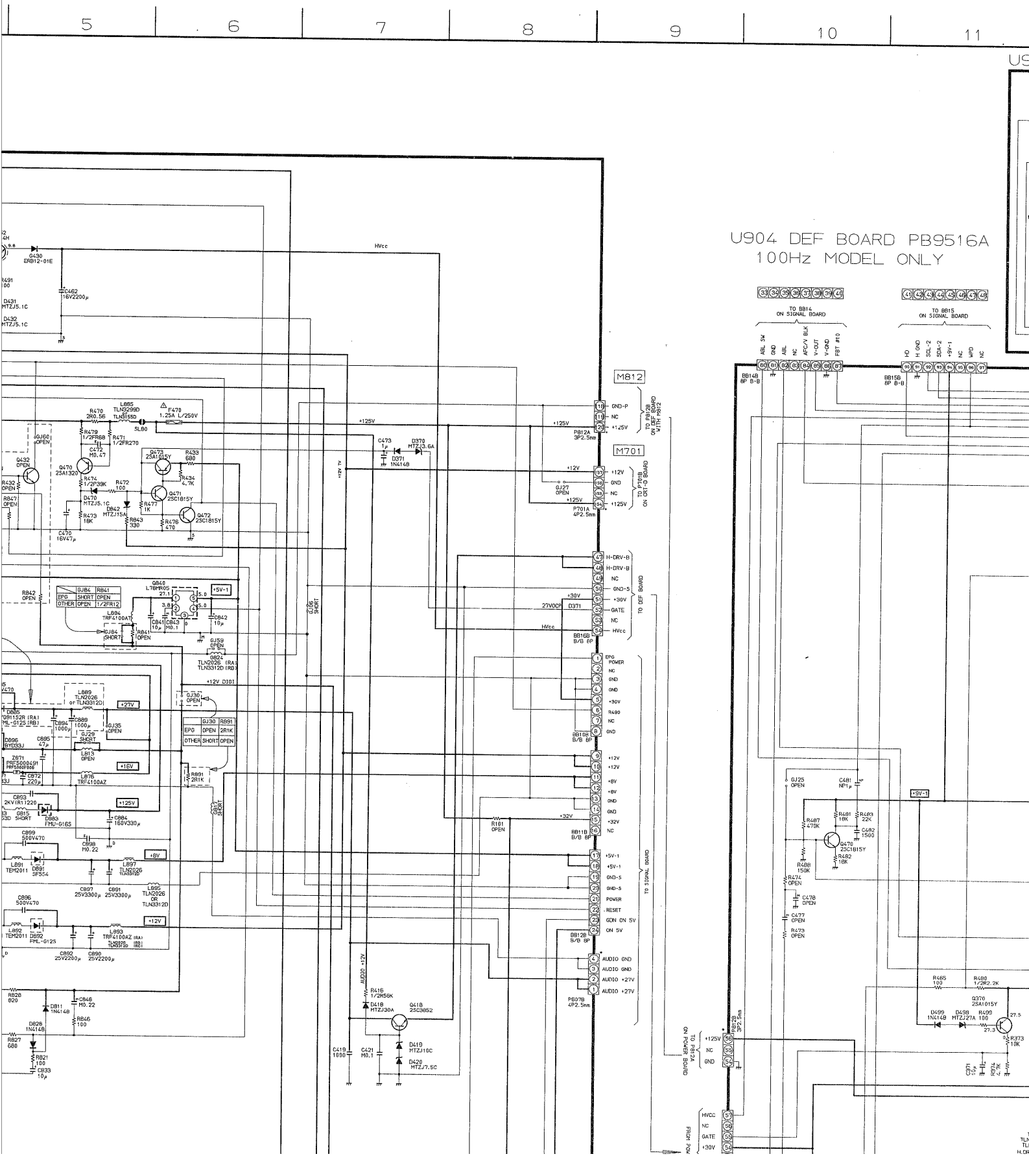


F VOLTAGES AND WAVEFORMS

ith VTVM from point shown to chassis ground, line voltage 220
signal. Voltages reading may vary ±20%.
re taken using a wide band oscilloscope and a low capacity probe.
taken using a standard colour bar signal.
CONTRAST and COLOUR controls are in mid position and
ntrol is almost in maximum position. Set other controls for best

NOTES:

1. D.C. resistance value of a principal transformer is shown in this schematic diagram. These are measured for separated from the circuit.
2. The circuits are subject to change without notice.
3. ⬬ : Solder links.

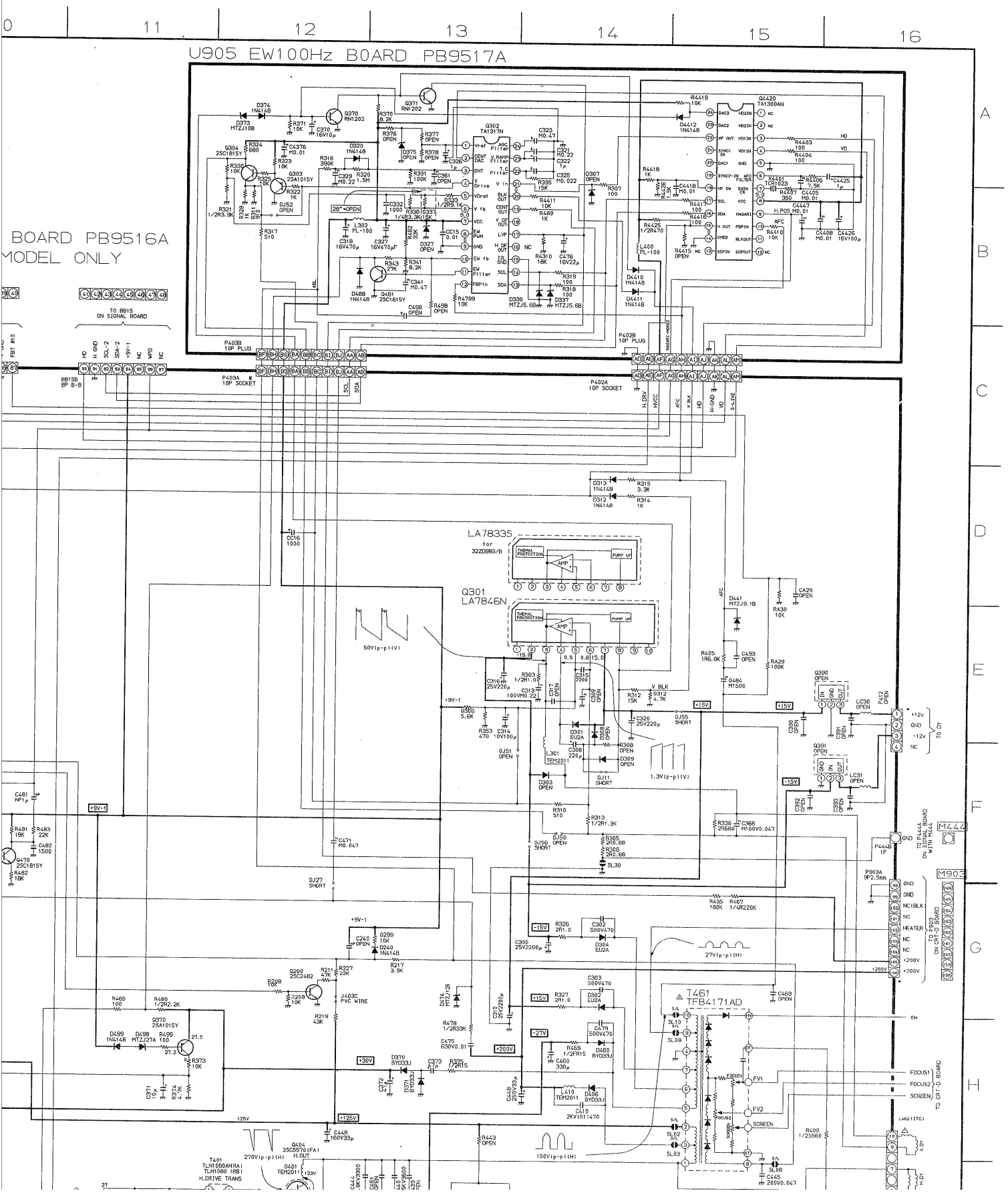


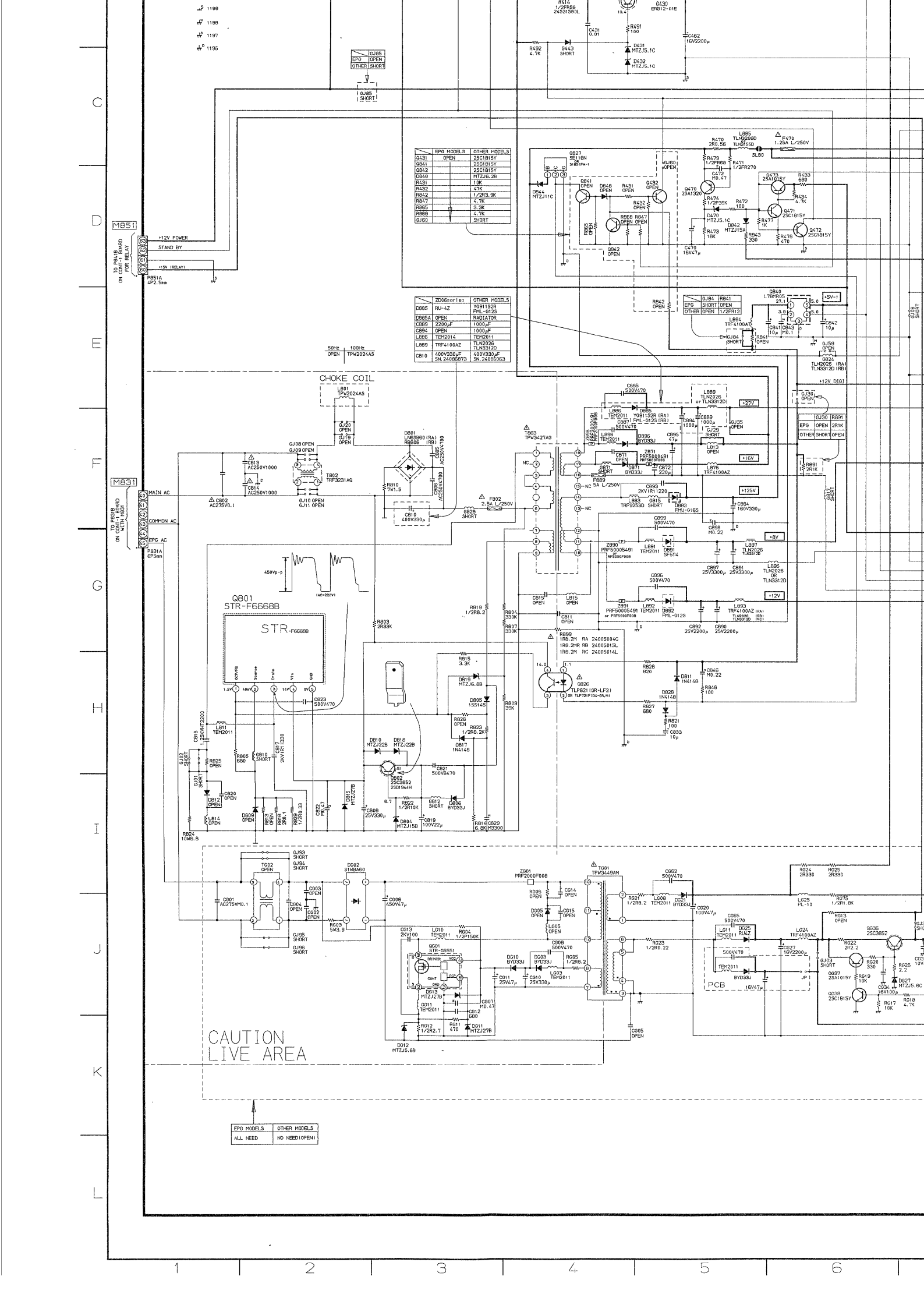
EXPRESSION

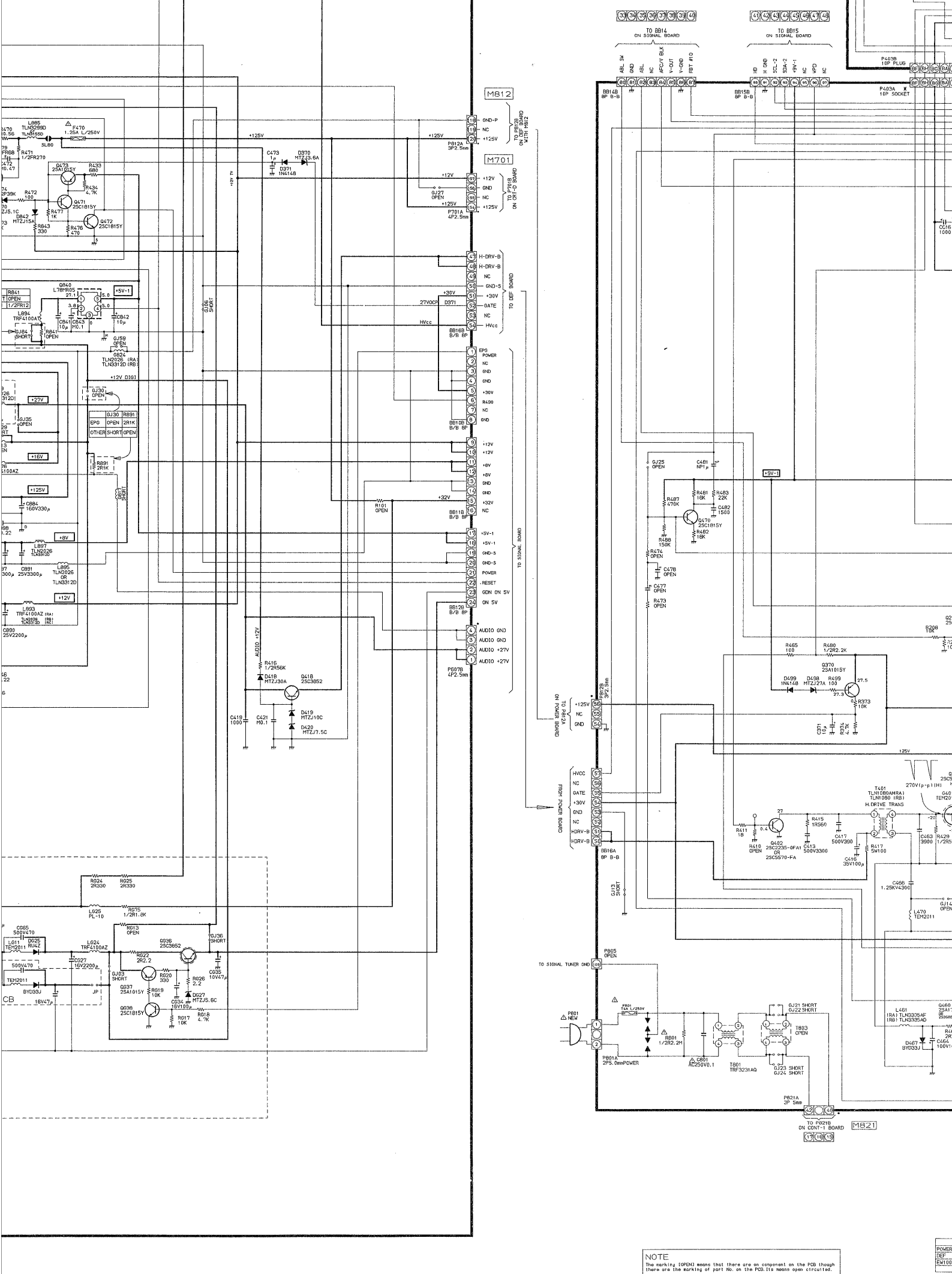
this schematic dia-

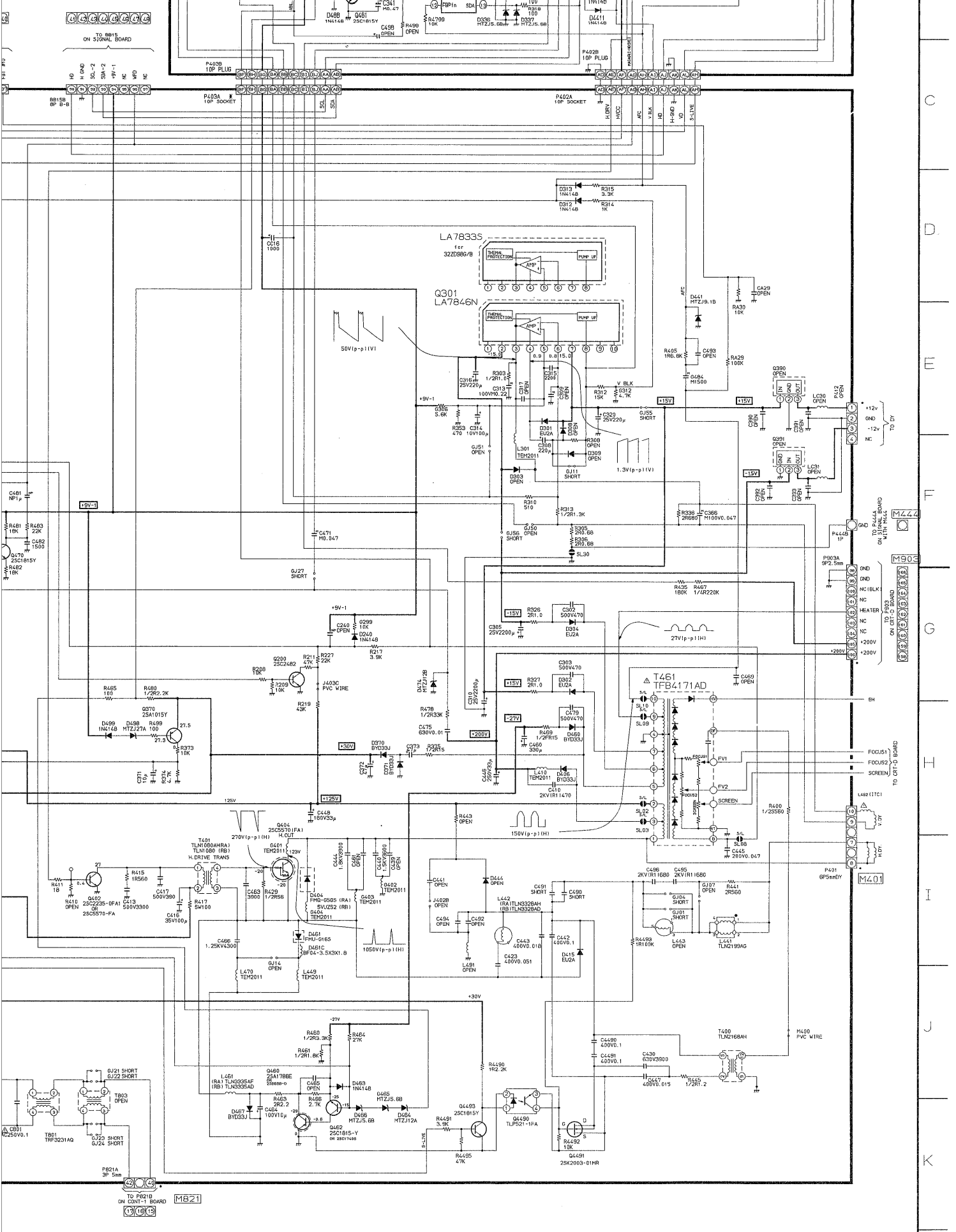
VALUE OF RESISTOR, CAPACITOR and INDUCTOR

1. Resistance is shown in ohm, k=1,000, M=1,000,000
2. Unless other wise noted in schematic, all capacitor values less than 1 are expressed in μF and the values more than 1 in pF.
3. Unless otherwise noted in schematic, all inductor values more than 1 are expressed in μH, and the values less than 1 in H.




CHOKE COIL
Q801
STR-F6668B
CAUTION
LIVE AREA
M851
M831
+12V POWER
STAND BY
MAIN AC
COMMON AC
EPG AC
+27V
+16V
+12V
+8V
+5V-1
+12V DIGI
PCB


M812
M701
M821
TO BB14 ON SIGNAL BOARD
TO BB15 ON SIGNAL BOARD
P403B 10P PLUG
P403A 10P SOCKET
BB14B 8P B-B
BB15B 8P B-B
ABL SW
GND
ABL
NC
AFC-Y
V-OUT
V-GND
FBT #10
H GND
SCL-2
SDA-2
+9V-1
NC
HPD
GND-P
NC
+125V
P812A 3P2.5mm
TO P812 ON MAIN BOARD WITH M812
+12V
GND
NC
+125V
P701A 4P2.5mm
TO P701B ON CRT-D BOARD
H-DRV-B
H-DRV-B
NC
GND-S
+30V
GATE
NC
HVcc
BB16B B/B 8P
TO DEF BOARD
EPS POWER
NC
GND
GND
+30V
R490
NC
GND
BB10B B/B 8P
+12V
+12V
+8V
+8V
GND
GND
+32V
NC
BB11B B/B 8P
+5V-1
+5V-1
GND-S
GND-S
POWER
RESET
GDN ON 5V
ON 5V
BB12B B/B 8P
TO SIGNAL BOARD
AUDIO GND
AUDIO GND
AUDIO +27V
AUDIO +27V
P807B 4P2.5mm
HVCC
NC
GATE
+30V
GND
NC
HDRV-B
HDRV-B
BB16A 8P B-B
FROM POWER BOARD
P812B 3P2.5mm
TO P812 ON POWER BOARD
+125V
NC
GND
P805 OPEN
TO SIGNAL TUNER GND
P801 NEW
P801A 2P5.0mmPOWER
P821A 3P 5mm
TO P821B ON CONT-1 BOARD
T401 TLN1080AHRA TLN1080 (RB) H.DRIVE TRANS
T801 TRF3231AQ
T803 OPEN
GJ21 SHORT
GJ22 SHORT
GJ23 SHORT
GJ24 SHORT
GJ13 SHORT
GJ36 SHORT
GJ03 SHORT
GJ06 SHORT
GJ84 SHORT
GJ30 OPEN
GJ35 OPEN
GJ59 OPEN
GJ25 OPEN
GJ27 OPEN
+5V-1
+12V
+27V
+16V
+8V
+125V
+32V
+30V
+12V D161
AUDIO +12V
F470 1.25A L/250V
SLB0
L625 PL-10
L624 TRF4100AZ
L693 TRF4100AZ (RA) TLN3312D (RB)
L694 TRF4100AZ
L695 TLN3298D TLN3155D
L697 TLN2026 TLN3312D
L895 TLN2026 OR TLN3312D
L470 TEM2011
L471 TEM2011
L461 (RA) TLN3335AF (RB) TLN3335AD
Q478 2SA1015Y
Q471 2SC1815Y
Q472 2SC1815Y
Q840 L78MR05
Q842 MTZJ15A
Q937 2SA1015Y
Q936 2SC1815Y
Q935 2SC3852
Q418 2SC3852
Q470 2SC1815Y
Q402 2SC2235-0FA1 OR 2SC5570-FA
Q370 2SA1015Y
Q460 2SA1
D371 1N4148
D370 MTZJ3.6A
D418 MTZJ30A
D419 MTZJ10C
D420 MTZJ7.5C
D499 1N4148
D498 MTZJ27A
D627 MTZJ5.6C
D467 BYD33J
R101 OPEN
R471 1/2FR270
R472 100
R473 OPEN
R474 OPEN
R476 470
R477 1K
R478 1K
R481 16K
R482 18K
R483 22K
R487 470K
R488 150K
R490 2R1K
R891 2R1K
R841 OPEN
R842 100
R843 330
R415 1/2R56K
R433 680
R434 4.7K
R465 100
R480 1/2R2.2K
R499 27.3
R373 10K
R208 10K
R924 2R330
R925 2R330
R975 1/2R1.8K
R013 OPEN
R022 2R2.2
R020 330
R019 10K
R026 2.2
R017 10K
R018 4.7K
R411 1B
R410 OPEN
R415 1R560
R417 5W100
R429 1/2R5
R801 1/2R2.2M
C473 1μ
C884 160V330μ
C891 25V3300μ
C893 25V2200μ
C895 500V470
C927 16V2200μ
C935 10V47μ
C634 16V100μ
C419 1000
C421 M0.1
C841 10μ
C843 M0.1
C842 10μ
C481 NP1μ
C482 1500
C478 OPEN
C477 OPEN
C471 10μ
C476 1μ
C417 500V390
C413 500V3300
C416 35V100μ
C463 3900
C466 1.25KV4300
C801 AC250V0.1
C464 100V1
R801 TCA 1/250V
F801 TCA 1/250V
BYD33J
TEM2011
CB
JP
16V47μ
NOTE
The marking (OPEN) means that there are on component on the PCB though there are the marking of part No. on the PCB. Its means open circuited.
POWER
DEF
EW100
6
7
8
9
10
11



UNIT SN.	
POWER	SN.23784883
DEF	SN.23784884
EW100Hz	SN.23784885
	SN.

COPPER SIDE PARTS	
	SN.
	SN.
	SN.
	SN.
	SN.

(W) means that there are on component on the PCB though inking of part No. on the PCB. Its means open circuited.

POWER/DEF/EW100Hz
32ZD09G/32ZD09B 2/7

PK3310

11	12	13	14	15	16

C D E F G H I J K L

SCHEMATIC DIAGRAM MODEL : 32ZD09G / 32ZD09B (3/7)

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on page 3. Do not degrade the safety of the receiver through improper servicing.

OBSERVATION OF VOLTAGES AND WAVEFORMS

1. Voltages read with VTVM from point shown to chassis ground, line voltage 220 volts, colour bar signal. Voltages reading may vary ±20%.
2. All waveforms are taken using a wide band oscilloscope and a low capacity probe.
3. Waveforms are taken using a standard colour bar signal.
4. Make sure that CONTRAST and COLOUR controls are in mid position and BRIGHTNESS control is almost in maximum position. Set other controls for best picture.

NOTES:

1. D.C. resistance value of a principal transformer is shown in this schematic diagram. These are measured for separated from the circuit.
2. The circuits are subject to change without notice.
3. ⬬ : Solder links.

EXPRESSION

VALUE OF RESISTOR, CAPACITOR and INDUCTOR

1. Resistance is shown in ohm, k=1,000, M=1,000,000
2. Unless other wise noted in schematic, all capacitor values less than 1 are expressed in μF and the values more than 1 in pF.
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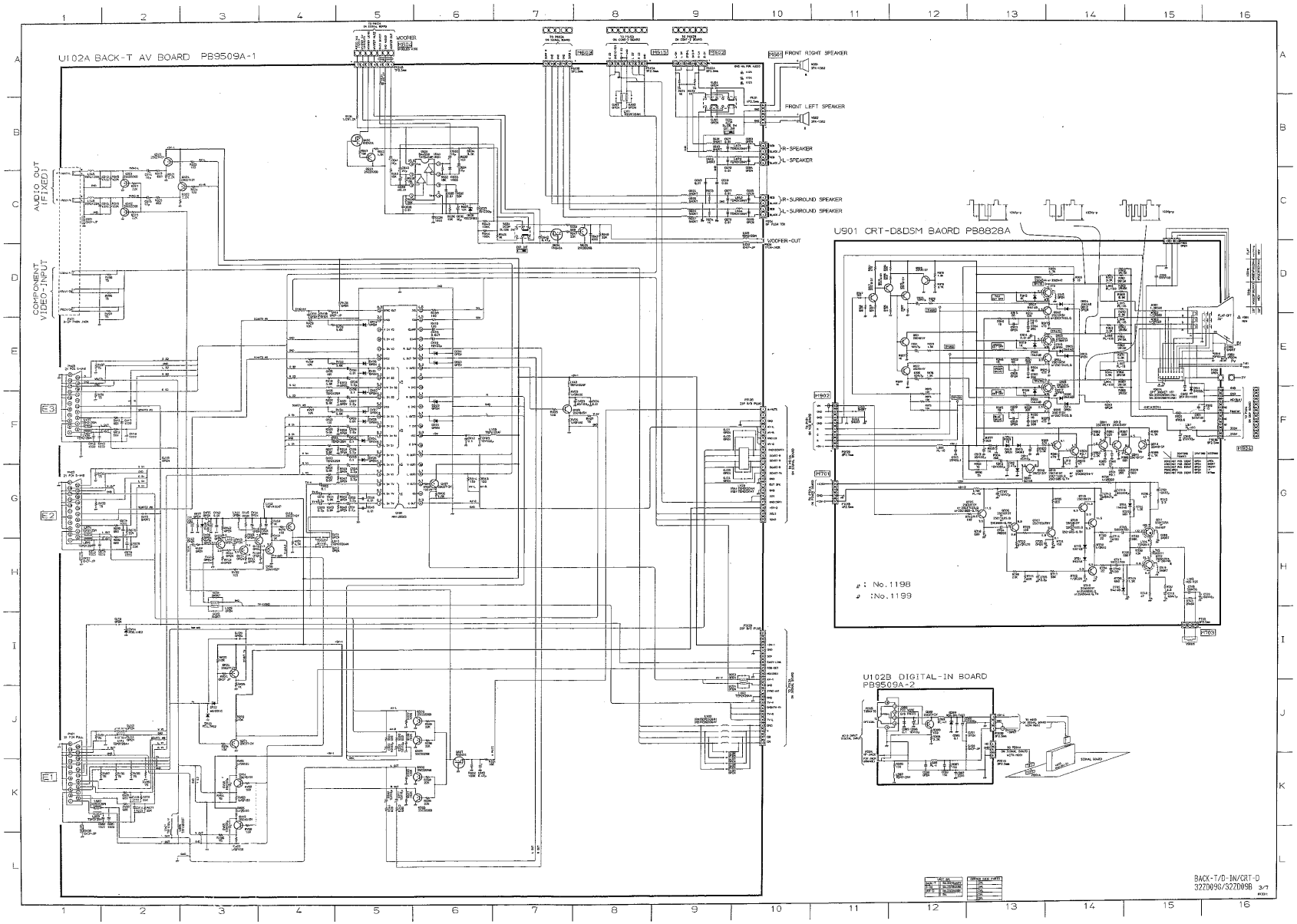


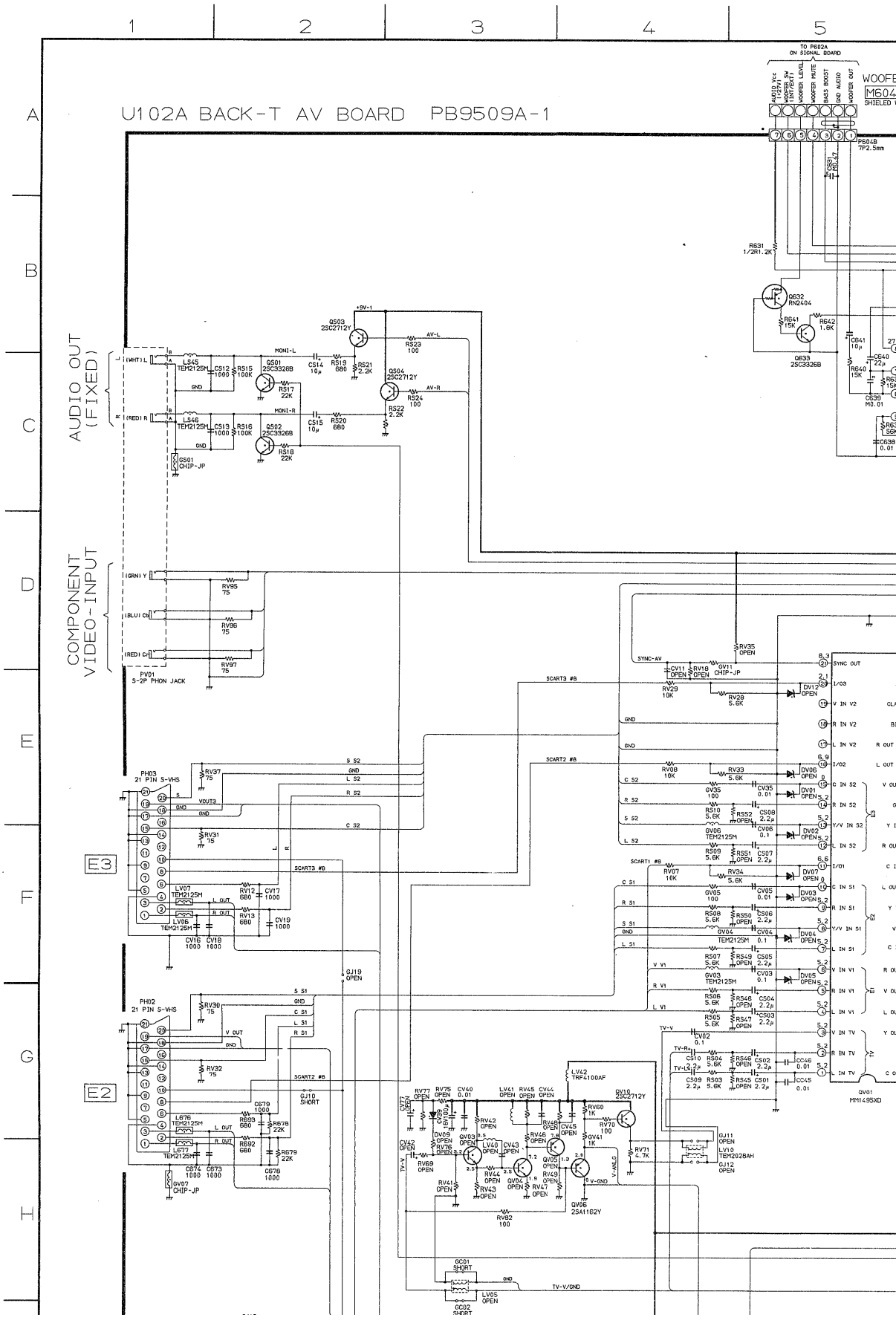
SCHEMATIC DIAGRAM MODEL : 32ZD09G / 32ZD09B (3/7)

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on page 3. Do not degrade the safety of the receiver through improper servicing.

OBSERVATION OF VOLTAGES AND WAVEFO

1. Voltages read with VTVM from point shown volts, colour bar signal. Voltages reading m
2. All waveforms are taken using a wide band os
3. Waveforms are taken using a standard colo
4. Make sure that CONTRAST and COLOUR BRIGHTNESS control is almost in maximum picture.

~~30200101~~



OF VOLTAGES AND WAVEFORMS

d with VTVM from point shown to chassis ground, line voltage 220
bar signal. Voltages reading may vary ±20%.
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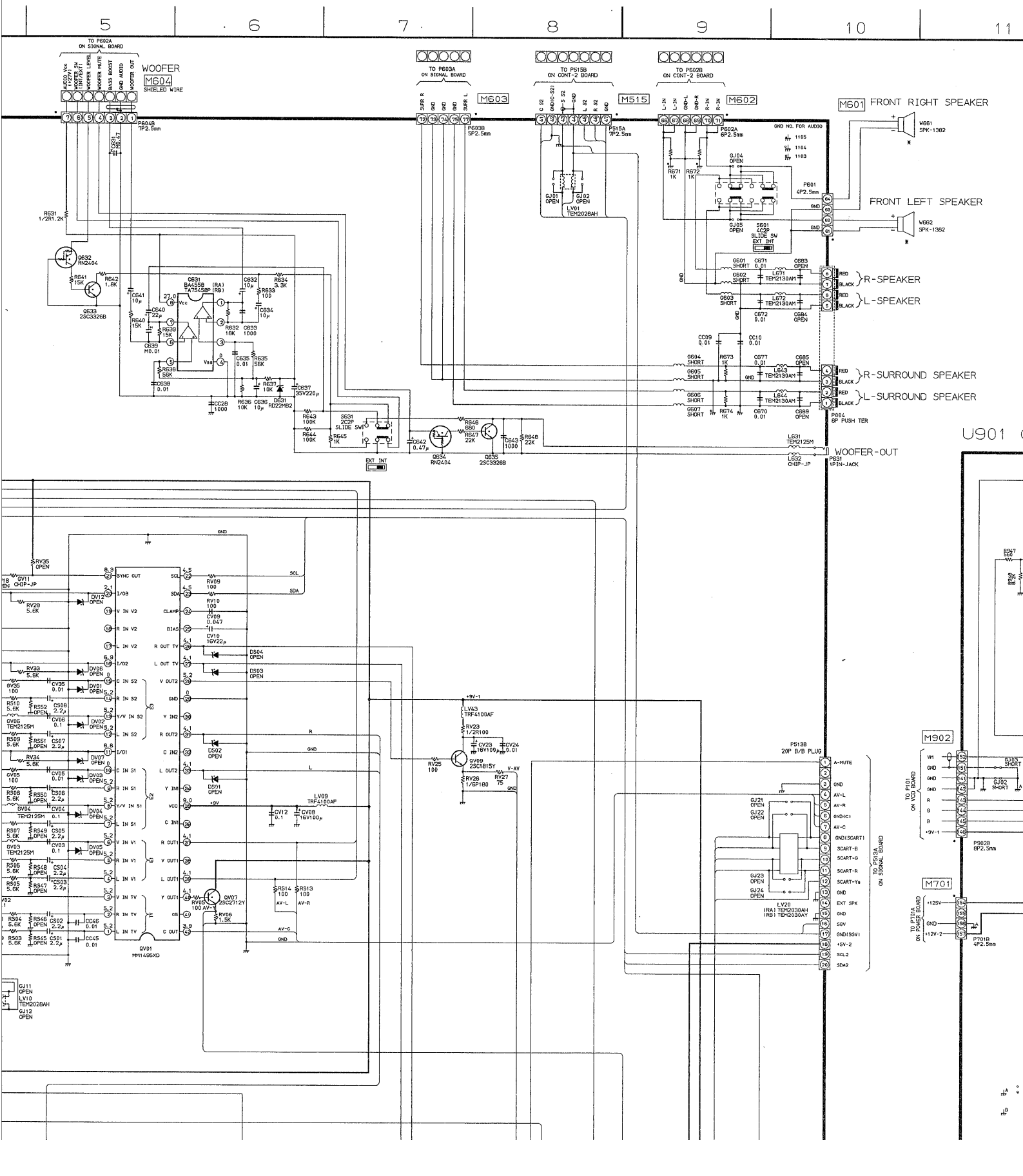

EXPRESSION

VALUE OF RESISTOR, CAPACITOR and INDUCTOR

n this schematic dia-

1. Resistance is shown in ohm, k=1,000, M=1,000,000
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3. Unless otherwise noted in schematic, all inductor values more than 1 are expressed in μH, and the values less than 1 in H.

10 | 11 | 12 | 13 | 14 | 15 | 16

A B C D E F G H

601 FRONT RIGHT SPEAKER

W661 SPK-1382

FRONT LEFT SPEAKER

W662 SPK-1382

R-SPEAKER

L-SPEAKER

R-SURROUND SPEAKER

L-SURROUND SPEAKER

OFER-OUT

104Vp-p 102Vp-p 103Vp-p

U901 CRT-D&DSM BAORD PB8828A

M902 M701 M904

TO P101 ON VOD BOARD

TO P701A ON POWER BOARD

TO P513A ON SIGNAL BOARD

TO P904 ON DEF BOARD

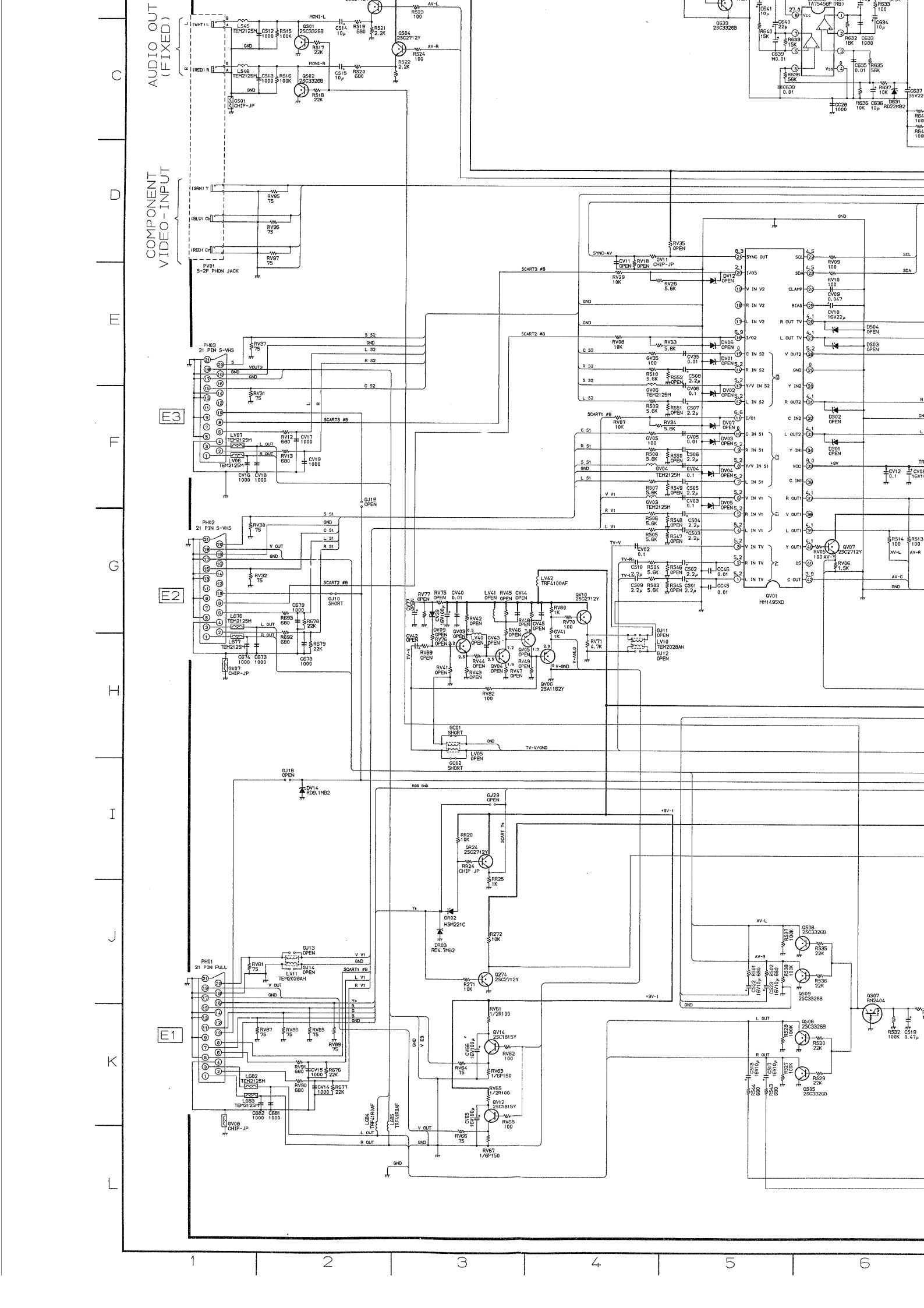
FLAT-CPT 32"

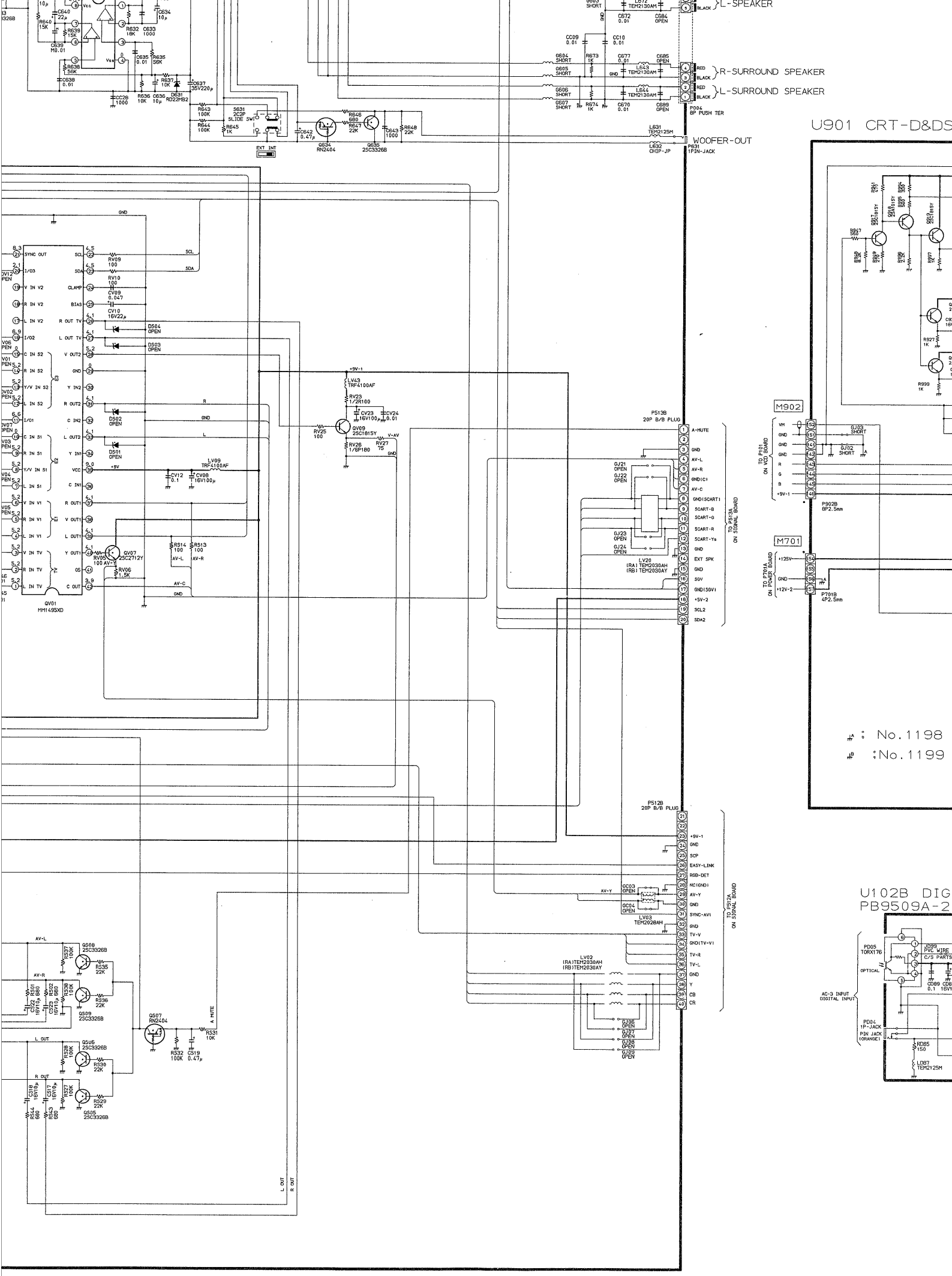
V901A CPT SOCKET 10P SN.23902891N (RA) SN.23902887N (RB)

(HEATER)

: No.1198

: No.1199


AUDIO OUT (FIXED)
COMPONENT VIDEO-INPUT
E1
E2
E3
PH01 21 PIN FULL
PH02 21 PIN S-VHS
PH03 21 PIN S-VHS
PV01 S-2P PHON JACK
GV01 MM1495XD
SCART1 #B
SCART2 #B
SCART3 #B
TV-V/GND
RGB GND
V-GND
+9V-1
GND
1
2
3
4
5
6
C
D
E
F
G
H
I
J
K

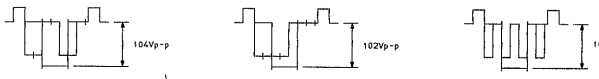

L-SPEAKER
R-SURROUND SPEAKER
L-SURROUND SPEAKER
WOOFER-OUT
U901 CRT-D&DS
M902
M701
P513B
20P B/B PLUG
P512B
20P B/B PLUG
TO P513A ON SIGNAL BOARD
TO P512A ON SIGNAL BOARD
TO P101 ON VCD BOARD
TO P701A ON POWER BOARD
U102B DIG
PB9509A-2
No.1198
No.1199
QV01
MM1495XD
QV07
2SC2712Y
QV09
2SC1815Y
QS07
RN2404
QS08
2SC3326B
QS09
2SC3326B
QS06
2SC3326B
QS05
2SC3326B
LV02
(RA)TEM2030AH
(RB)TEM2030AY
LV03
TEM2028AH
LV09
TRF4100AF
LV20
(RA)TEM2030AH
(RB)TEM2030AY
AV-L
AV-R
L OUT
R OUT
A MUTE
AV-Y
EXT INT

5	6	7	8	9	10	11

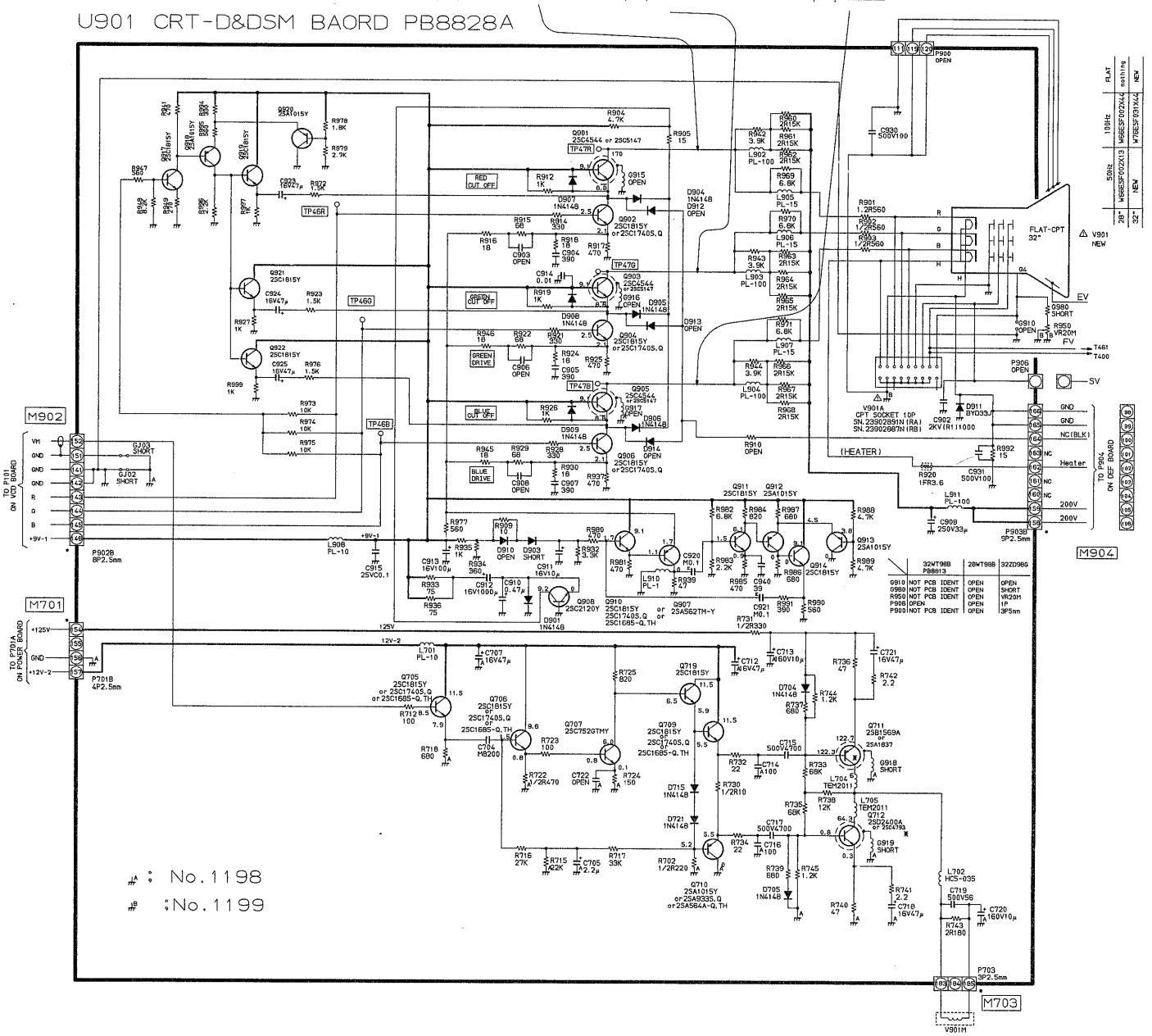
URROUND SPEAKER

URROUND SPEAKER

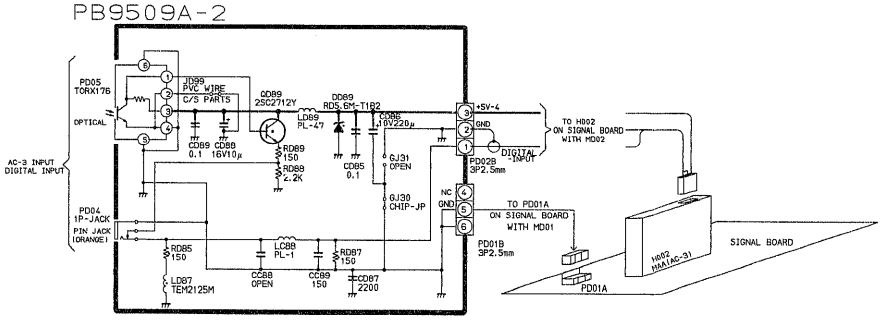
UT



U901 CRT-D&DSM BAORD PB8828A



U102B DIGITAL-IN BOARD PB9509A-2



UNIT SN.	
BACK-T	SN.23784877
D-IN	SN.23784888
CRT-D	SN.23784881
	SN.

COPPER SIDE PARTS	
	SN.
	SN.
	SN.
	SN.

BACK-T/D-IN/CRT-D
32ZD09G/32ZD09B 3/7

PK3311

SCHEMATIC DIAGRAM MODEL : 32ZD09G / 32ZD09B (4/7)

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OBSERVATION OF VOLTAGES AND WAVEFORMS

1. Voltages read with VTVM from point shown to chassis ground, line voltage 220 volts, colour bar signal. Voltages reading may vary ±20%.
2. All waveforms are taken using a wide band oscilloscope and a low capacity probe.
3. Waveforms are taken using a standard colour bar signal.
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NOTES:

1. D.C. resistance value of a principal transformer is shown in this schematic diagram. These are measured for separated from the circuit.
2. The circuits are subject to change without notice.
3. ● : Solder links.

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30200101

U906A CONTROL-1 BOARD
PB9518A-1

FRONT VIEW

U906B CONTROL-2 BOARD
PB9518A-2

CONT-1/CONT-2
32ZD09G/32ZD09B 4/7

SCHEMATIC DIAGRAM MODEL : 32ZD09G / 32ZD09B (4/7)

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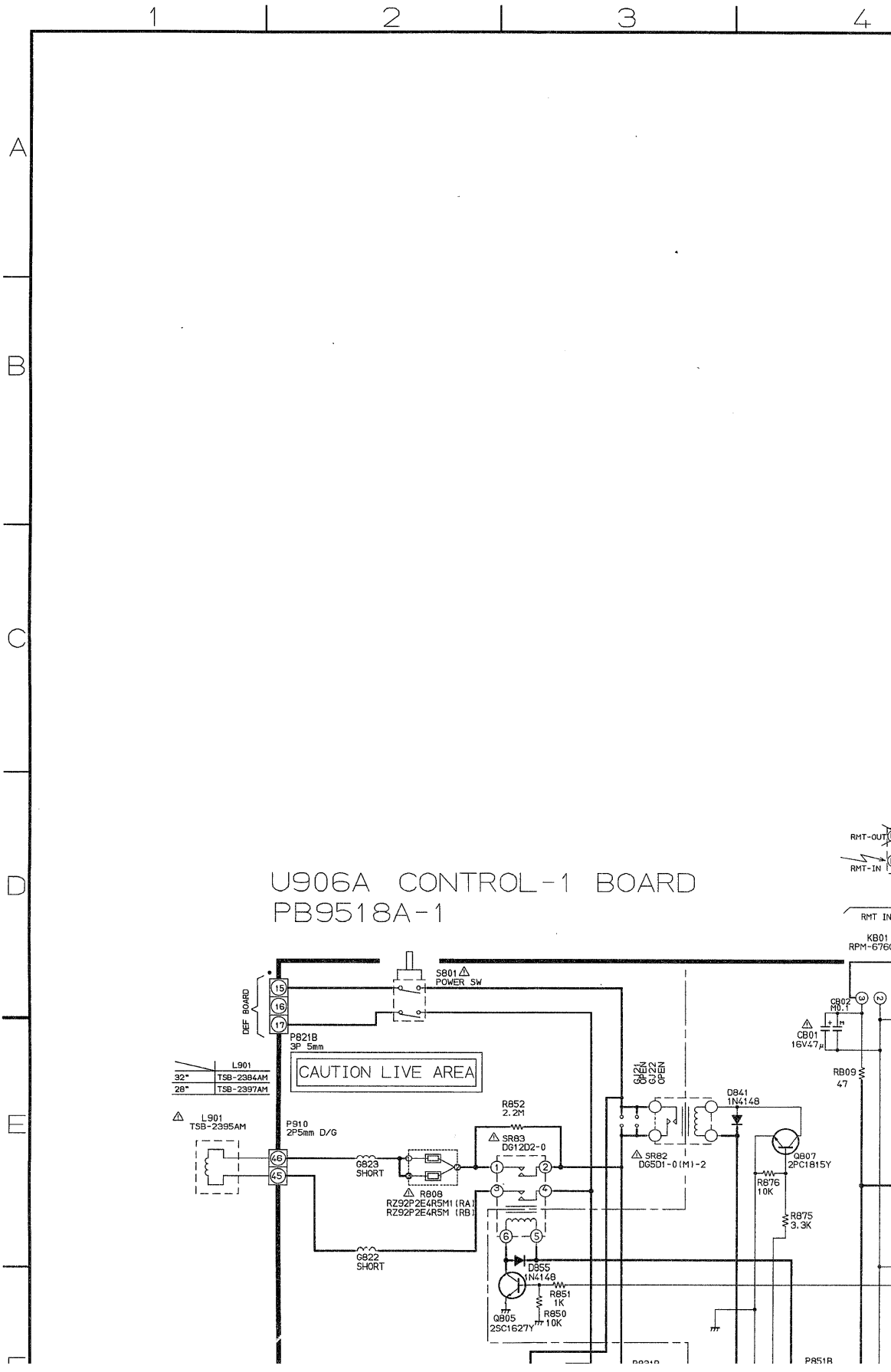
4. Make sure that CONTRAST and COLOU BRIGHTNESS control is almost in maximu picture.

30200101



F VOLTAGES AND WAVEFORMS

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taken using a standard colour bar signal.
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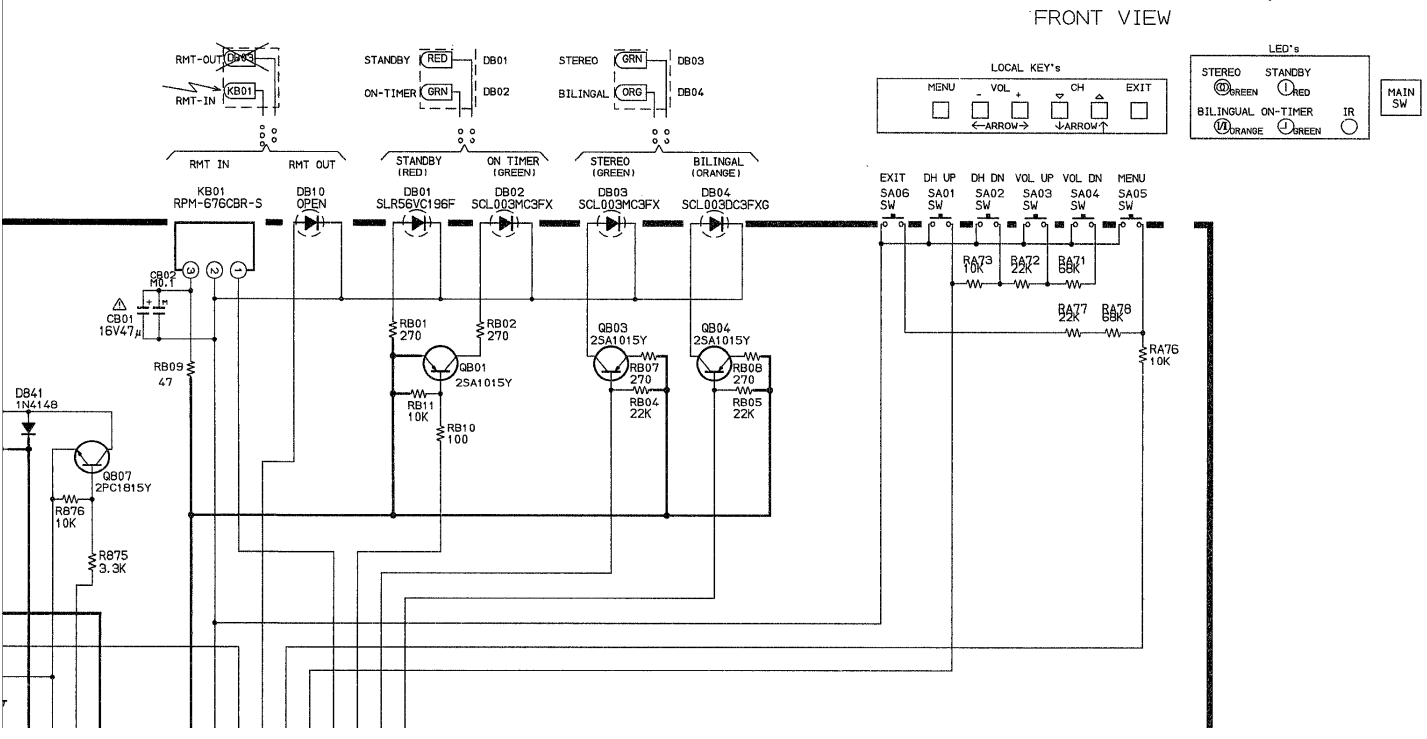
3. ⬬ : Solder links.

4 5 6 7 8



his schematic dia-

EXPRESSION

VALUE OF RESISTOR, CAPACITOR and INDUCTOR

1. Resistance is shown in ohm, k=1,000, M=1,000,000
2. Unless other wise noted in schematic, all capacitor values less than 1 are expressed in μF and the values more than 1 in pF.
3. Unless otherwise noted in schematic, all inductor values more than 1 are expressed in μH, and the values less than 1 in H.

8 | 9 | 10 | 11 | 12

A

B

C

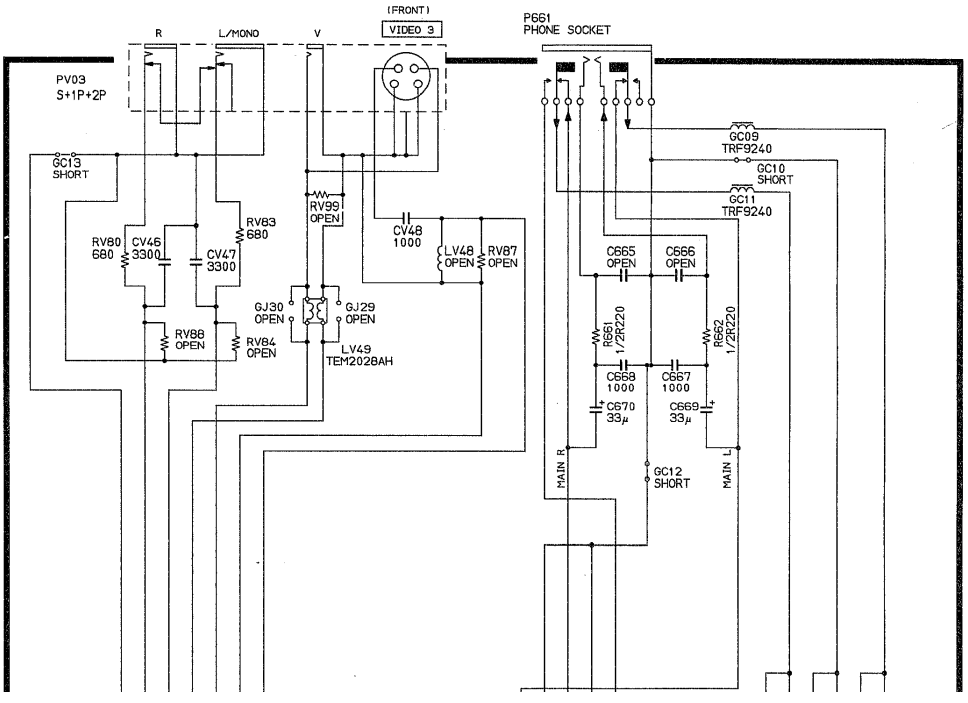
D

E

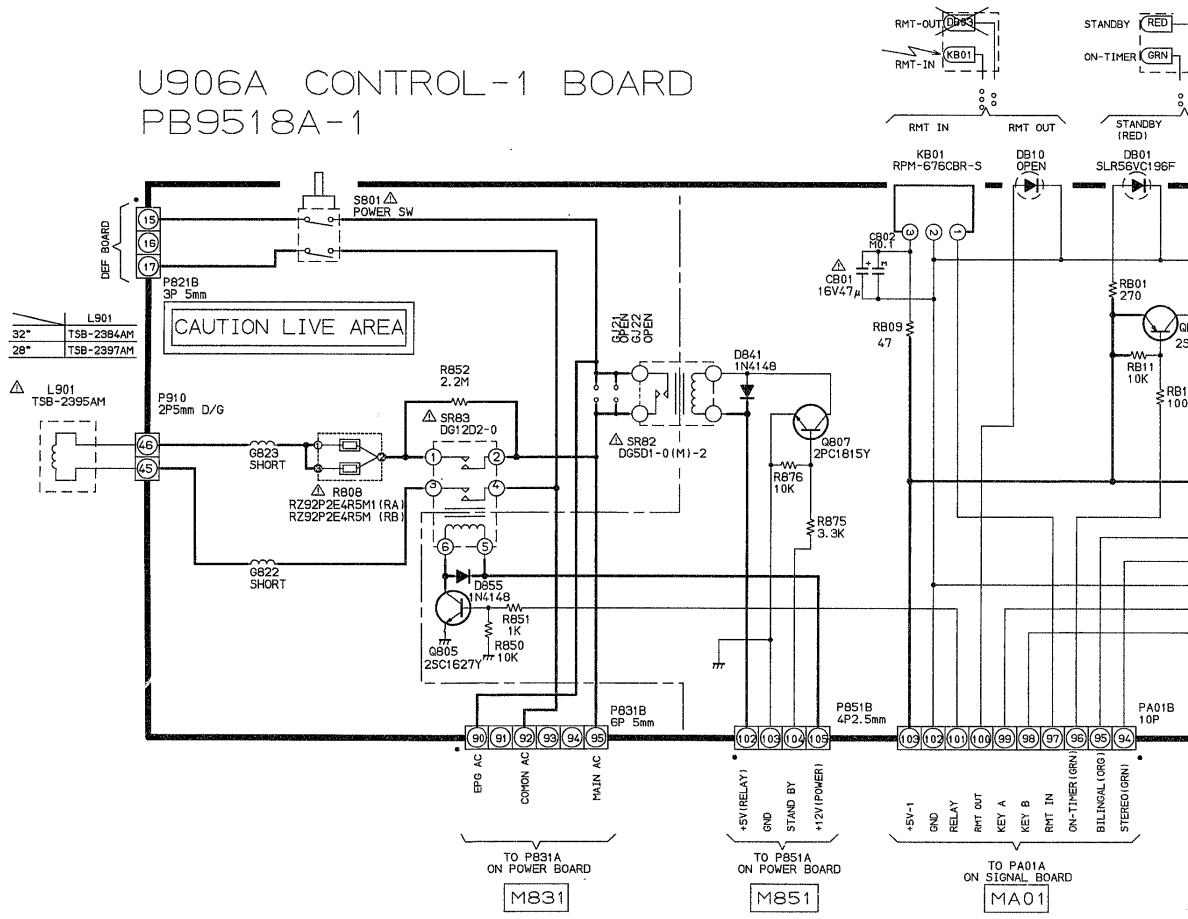
IR

MAIN SW

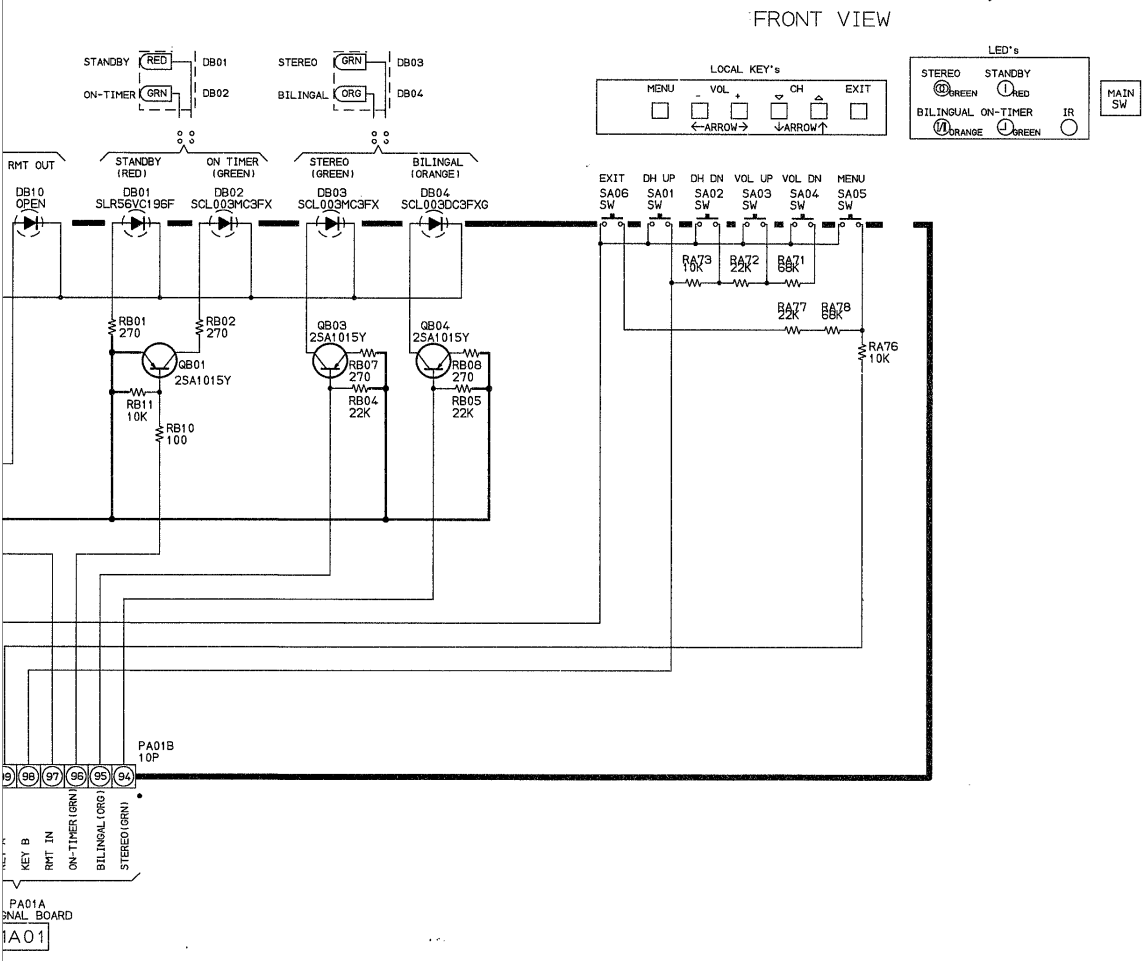
U906B CONTROL-2 BOARD
PB9518A-2

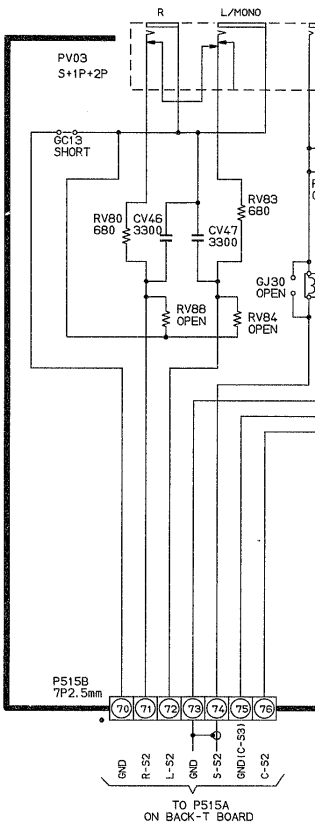


U906A CONTROL-1 BOARD
PB9518A-1



U906B CONTR
PB9518A-2



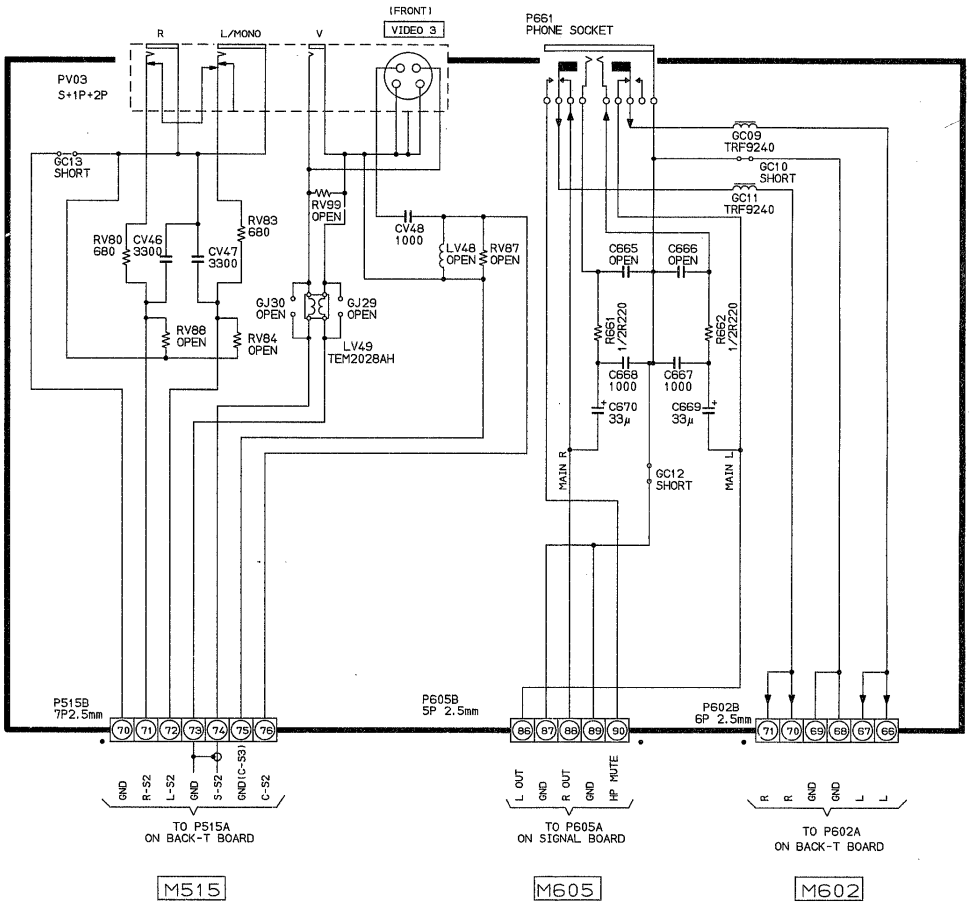


UNIT SN.	
CONT-1	SN.23784886
CONT-2	SN.23784887
	SN.
	SN.
	SN.

COPPER SIDE PARTS	
	SN.
	SN.
	SN.
	SN.
	SN.

5 6 7 8 9

U906B CONTROL-2 BOARD
PB9518A-2



UNIT SN.	
-1	SN.23784886
-2	SN.23784887
	SN.
	SN.
	SN.

COPPER SIDE PARTS	
	SN.
	SN.
	SN.
	SN.
	SN.

CONT-1/CONT-2
32ZD09G/32ZD09B

SCHEMATIC DIAGRAM MODEL : 32ZD09G / 32ZD09B (5/7)

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on page 3. Do not degrade the safety of the receiver through improper servicing.

OBSERVATION OF VOLTAGES AND WAVEFORMS

1. Voltages read with VTVM from point shown to chassis ground, line voltage 220 volts, colour bar signal. Voltages reading may vary ±20%.
2. All waveforms are taken using a wide band oscilloscope and a low capacity probe.
3. Waveforms are taken using a standard colour bar signal.
4. Make sure that CONTRAST and COLOUR controls are in mid position and BRIGHTNESS control is almost in maximum position. Set other controls for best picture.

NOTES:

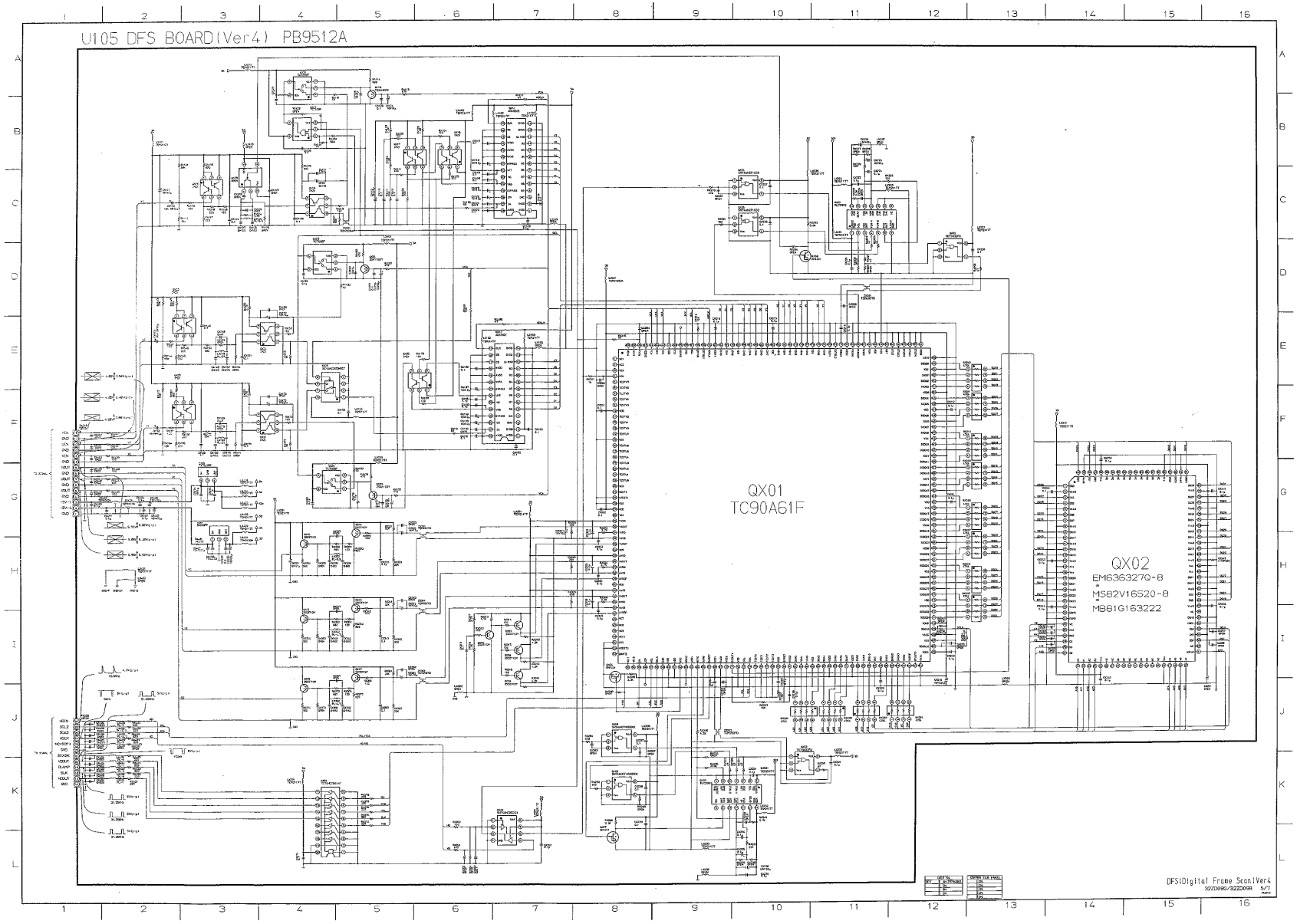
1. D.C. resistance value of a principal transformer is shown in this schematic diagram. These are measured for separated from the circuit.
2. The circuits are subject to change without notice.
3. ● : Solder links.

EXPRESSION

VALUE OF RESISTOR, CAPACITOR and INDUCTOR

1. Resistance is shown in ohm, k=1,000, M=1,000,000
2. Unless other wise noted in schematic, all capacitor values less than 1 are expressed in μF and the values more than 1 in pF.
3. Unless otherwise noted in schematic, all inductor values more than 1 are expressed in μH, and the values less than 1 in H.

30200101



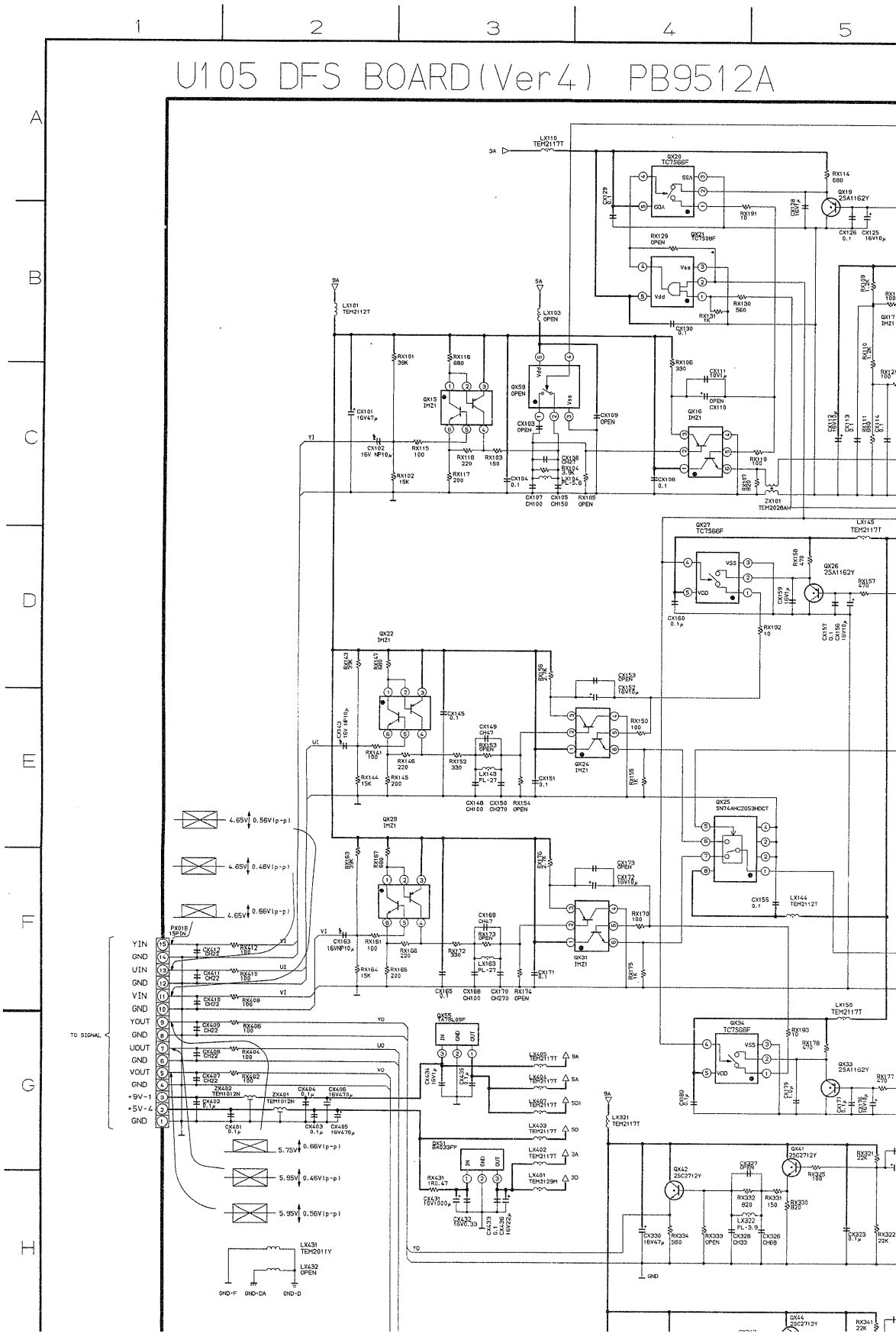
SCHEMATIC DIAGRAM MODEL : 32ZD09G / 32ZD09B (5/7)

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on page 3. Do not degrade the safety of the receiver through improper servicing.

OBSERVATION OF VOLTAGES AND WAV

1. Voltages read with VTVM from point sh volts, colour bar signal. Voltages readir
2. All waveforms are taken using a wide bar
3. Waveforms are taken using a standard
4. Make sure that CONTRAST and COL BRIGHTNESS control is almost in maxin picture.

30200101



ON OF VOLTAGES AND WAVEFORMS

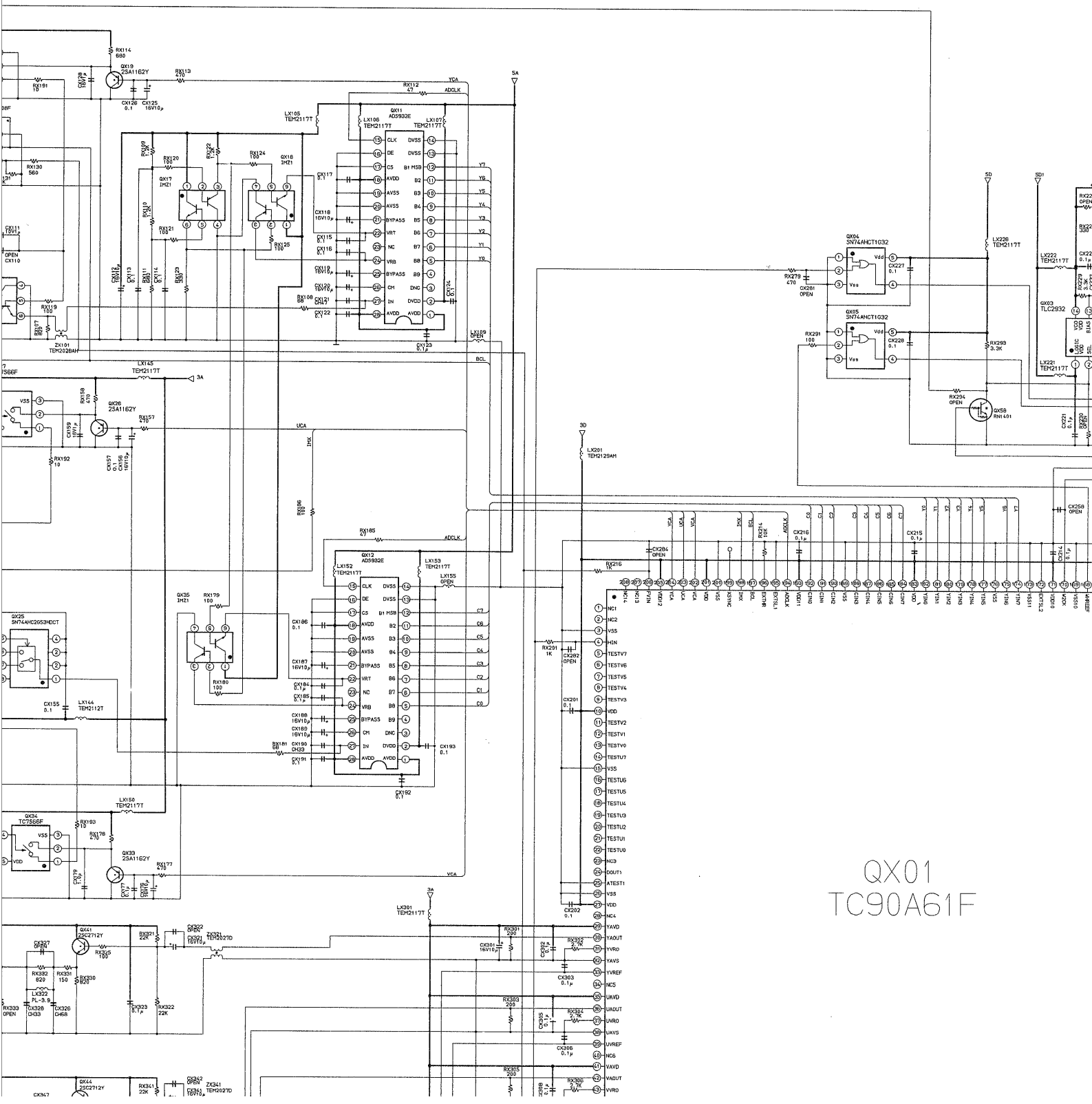
ead with VTVM from point shown to chassis ground, line voltage 220
ur bar signal. Voltages reading may vary ±20%.
rms are taken using a wide band oscilloscope and a low capacity probe.
s are taken using a standard colour bar signal.
e that CONTRAST and COLOUR controls are in mid position and
SS control is almost in maximum position. Set other controls for best

NOTES:

1. D.C. resistance value of a principal transformer is shown in this schematic diagram. These are measured for separated from the circuit.
2. The circuits are subject to change without notice.
3. ● : Solder links.

5 6 7 8 9 10 11

512A

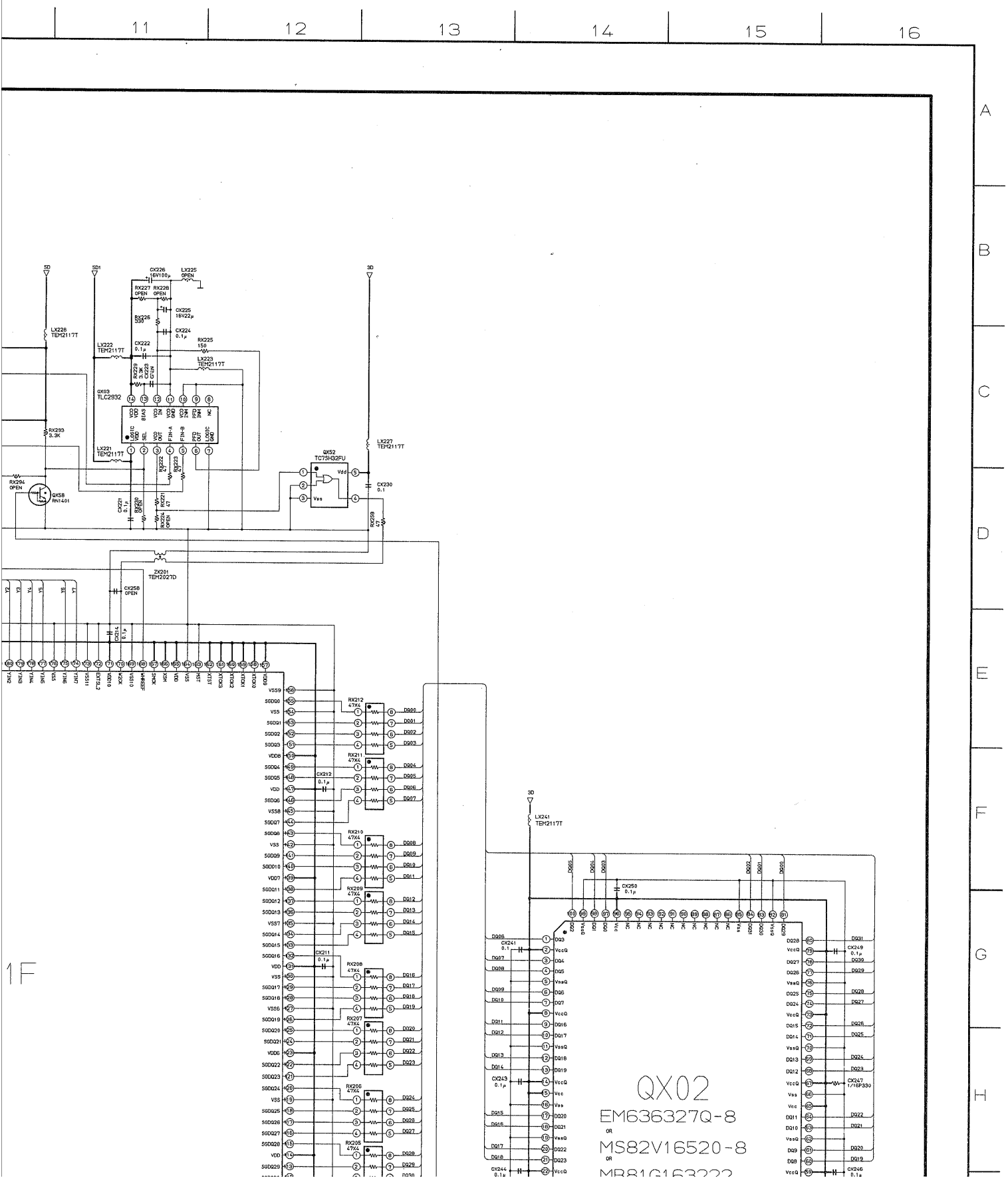


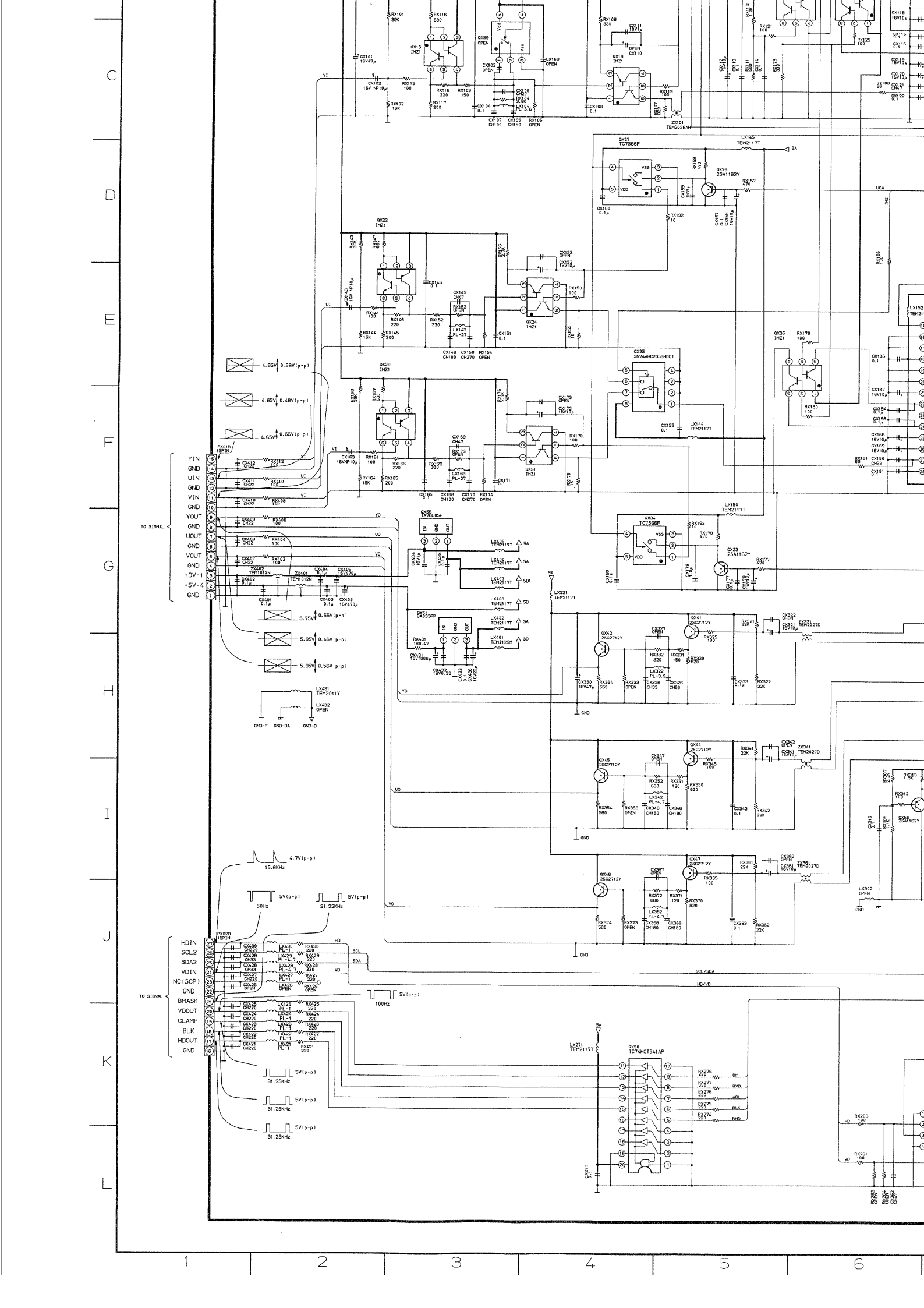
EXPRESSION

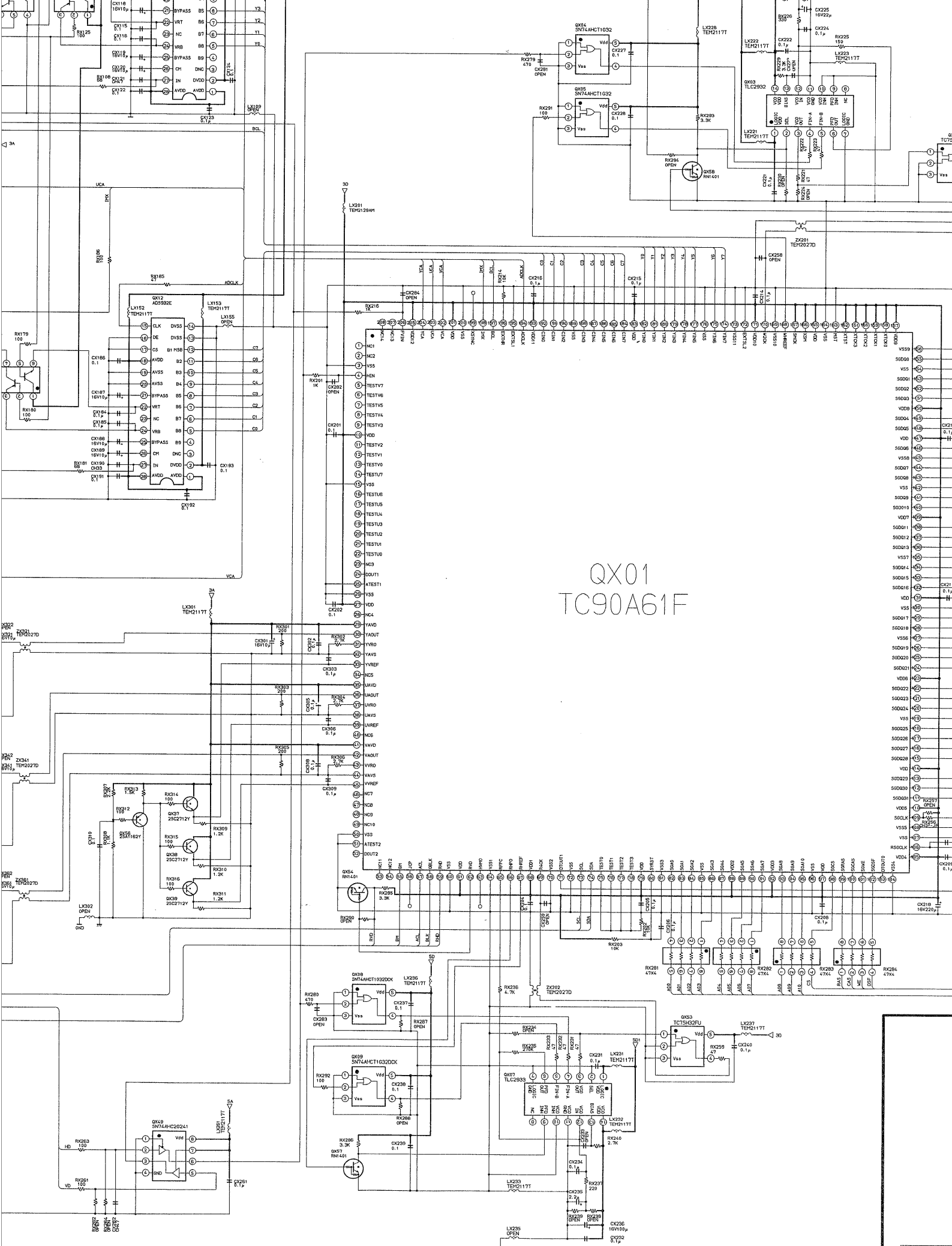
is schematic dia-

VALUE OF RESISTOR, CAPACITOR and INDUCTOR

1. Resistance is shown in ohm, k=1,000, M=1,000,000
2. Unless other wise noted in schematic, all capacitor values less than 1 are expressed in μF and the values more than 1 in pF.
3. Unless otherwise noted in schematic, all inductor values more than 1 are expressed in μH, and the values less than 1 in H.

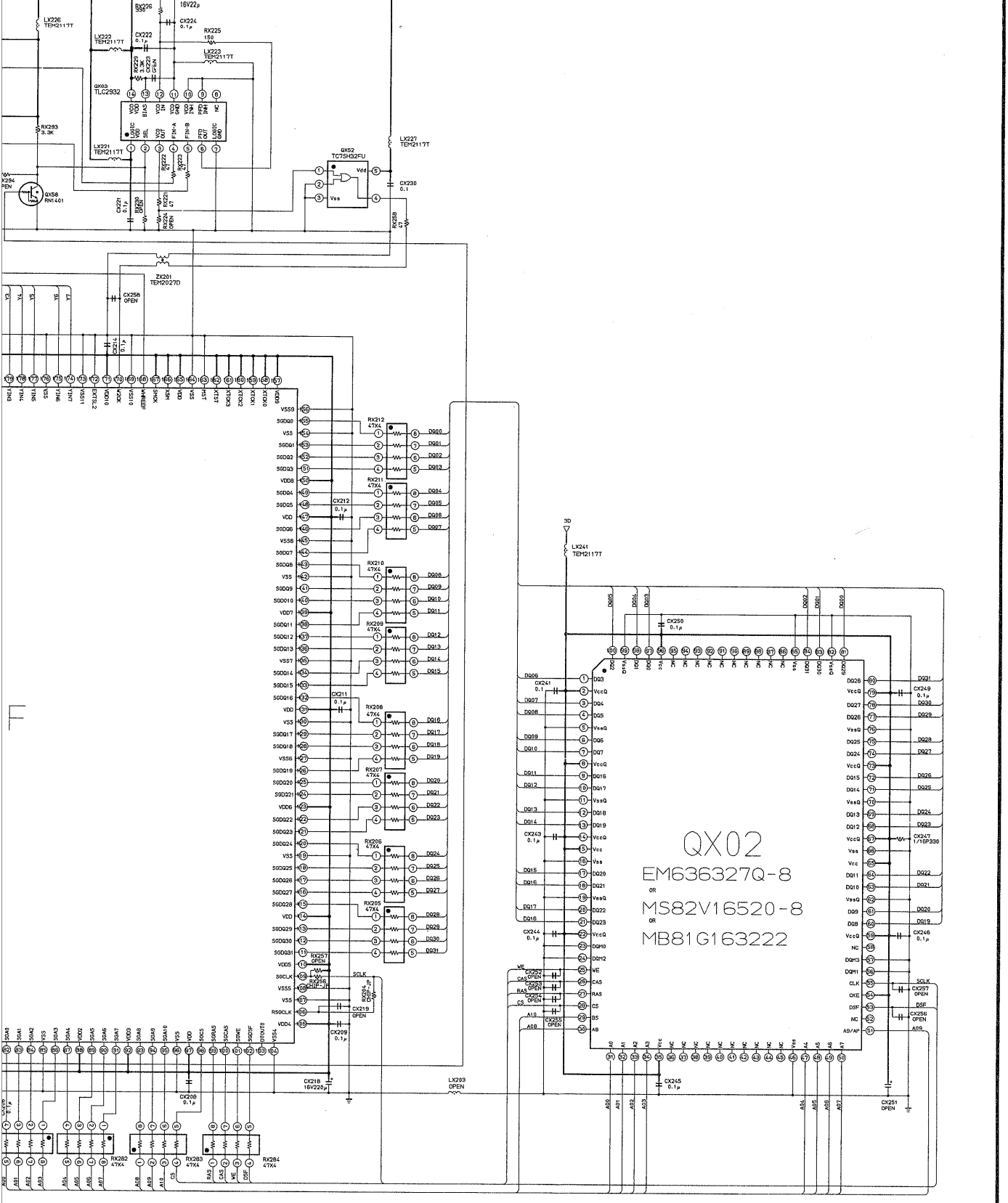



TO SIGNAL
YIN
GND
UIN
GND
VIN
GND
YOUT
GND
UOUT
GND
VOUT
GND
+9V-1
+5V-4
GND
HDIN
SCL2
SDA2
VDIN
NC(SCP)
GND
BMASK
VDOUT
CLAMP
BLK
HDOUT
GND
4.6SV 0.56V(p-p)
4.65V 0.46V(p-p)
4.65V 0.66V(p-p)
5.75V 0.66V(p-p)
5.95V 0.46V(p-p)
5.95V 0.56V(p-p)
4.7V(p-p) 15.6KHz
5V(p-p) 50Hz
5V(p-p) 31.25KHz
5V(p-p) 100Hz
GND-F
GND-DA
GND-D
SCL/SDA
HD/VD



UNIT SN.	
DFS	SN.2378
	SN.
	SN.
	SN.

6 7 8 9 10 11 12



UNIT SN.	
DFS	SN.2378ABB0
	SN.
	SN.
	SN.

COPPER SIDE PARTS	
	SN.
	SN.
	SN.
	SN.
	SN.

DFS(Digital Frame Scan)Ver4
32ZD09C/32ZD09B 5/7
PK3313

SCHEMATIC DIAGRAM **MODEL : 32ZD09G / 32ZD09B (6/7)**

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on page 3. Do not degrade the safety of the receiver through improper servicing.

OBSERVATION OF VOLTAGES AND WAVEFORMS

1. Voltages read with VTVM from point shown to chassis ground, line voltage 220 volts, colour bar signal. Voltages reading may vary ±20%.
2. All waveforms are taken using a wide band oscilloscope and a low capacity probe.
3. Waveforms are taken using a standard colour bar signal.
4. Make sure that CONTRAST and COLOUR controls are in mid position and BRIGHTNESS control is almost in maximum position. Set other controls for best picture.

NOTES:

1. D.C. resistance value of a principal transformer is shown in this schematic diagram. These are measured for separated from the circuit.
2. The circuits are subject to change without notice.
3. ⏷ : Solder links.

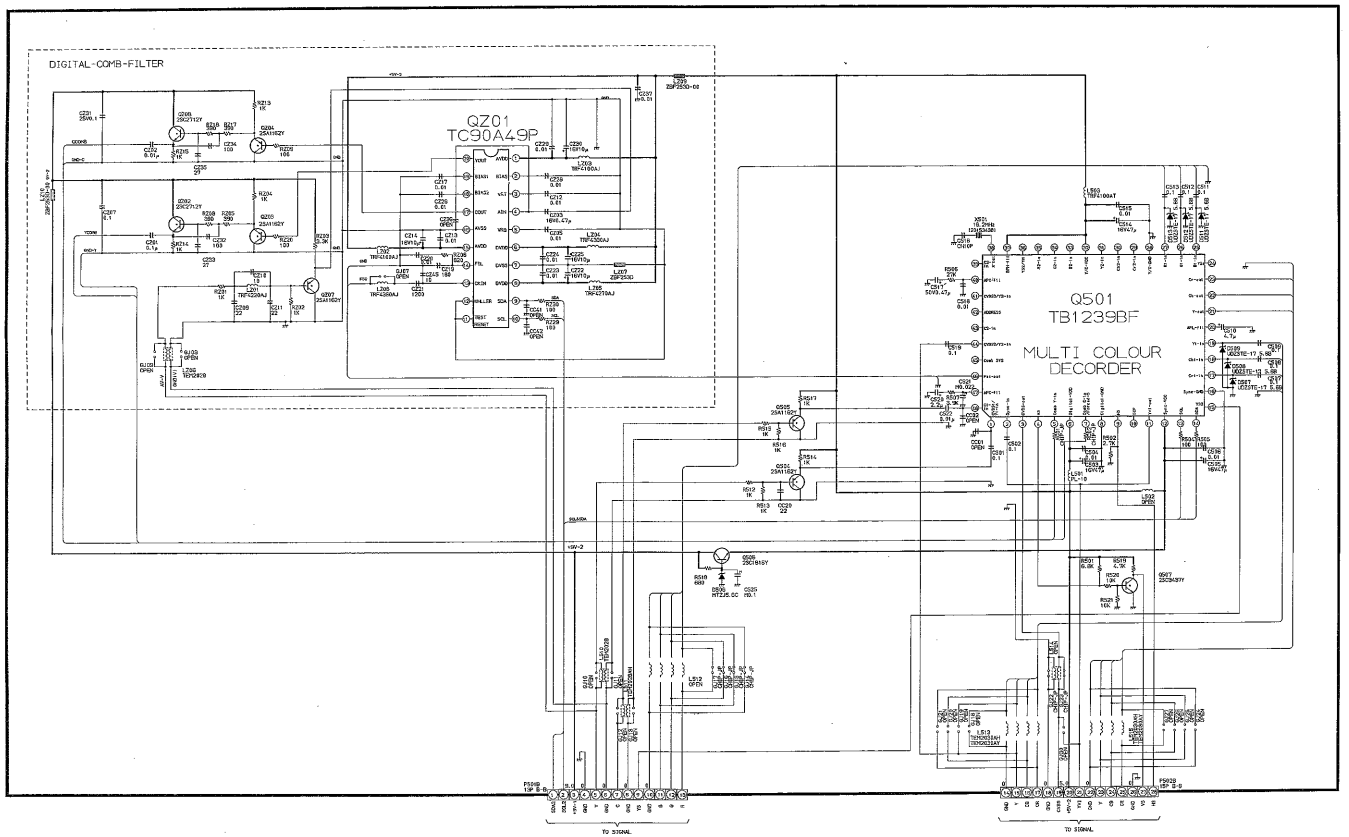
EXPRESSION

VALUE OF RESISTOR, CAPACITOR and INDUCTOR

1. Resistance is shown in ohm, k=1,000, M=1,000,000
2. Unless other wise noted in schematic, all capacitor values less than 1 are expressed in μF and the values more than 1 in pF.
3. Unless otherwise noted in schematic, all inductor values more than 1 are expressed in μH, and the values less than 1 in H.

30200101

U103 D-COMB&MCD BOARD PB9510A



D-COMB&MCD PART
32ZD09G/32ZD09B 6/7
PB9504

SCHEMATIC DIAGRAM MODEL : 32ZD09G / 32ZD09B (6/7)

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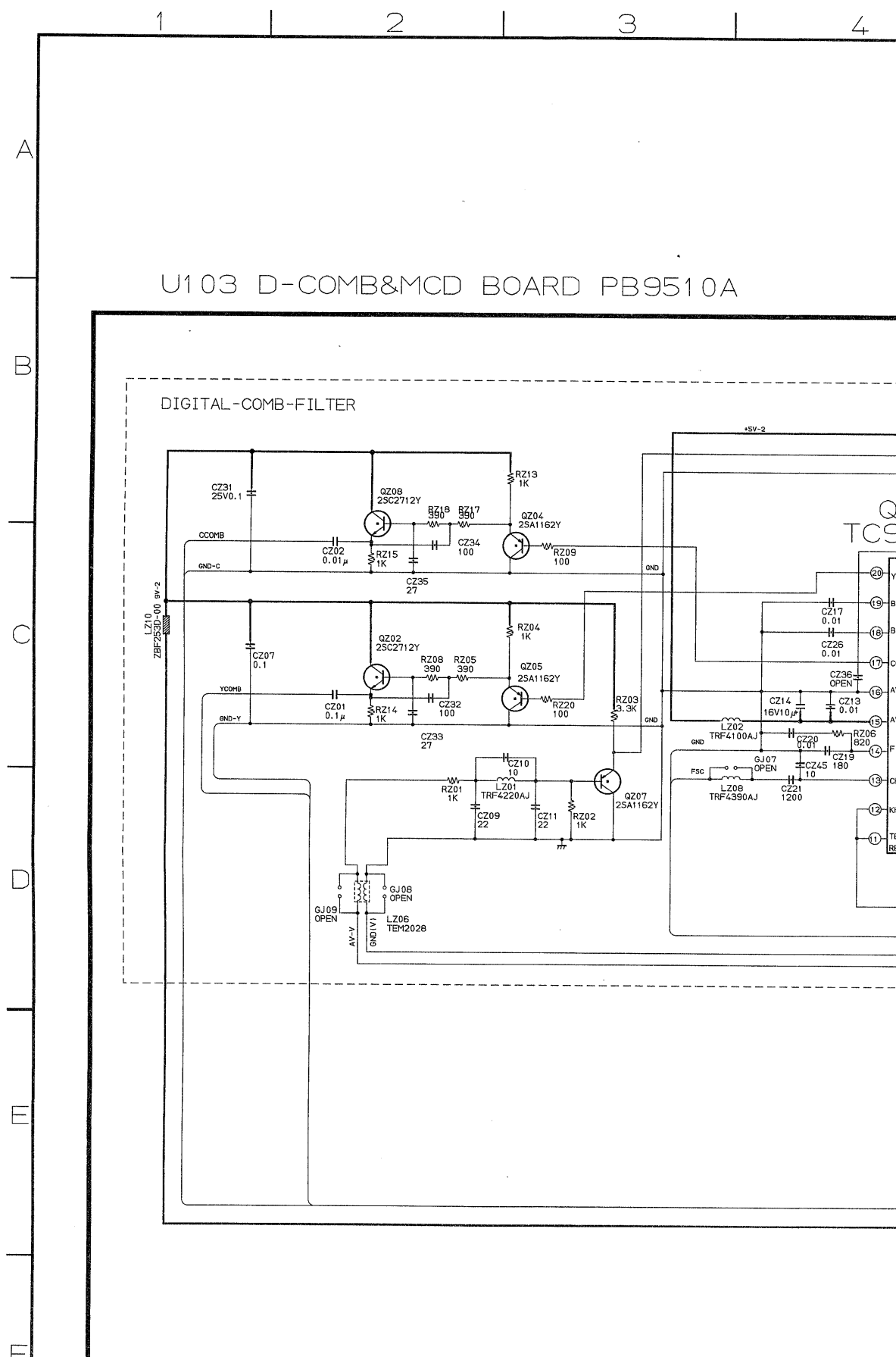
OBSERVATION OF VOLTAGES AND WAVEF

1. Voltages read with VTVM from point show volts, colour bar signal. Voltages reading
2. All waveforms are taken using a wide band
3. Waveforms are taken using a standard col
4. Make sure that CONTRAST and COLOU BRIGHTNESS control is almost in maximu picture.

30200101



OF VOLTAGES AND WAVEFORMS

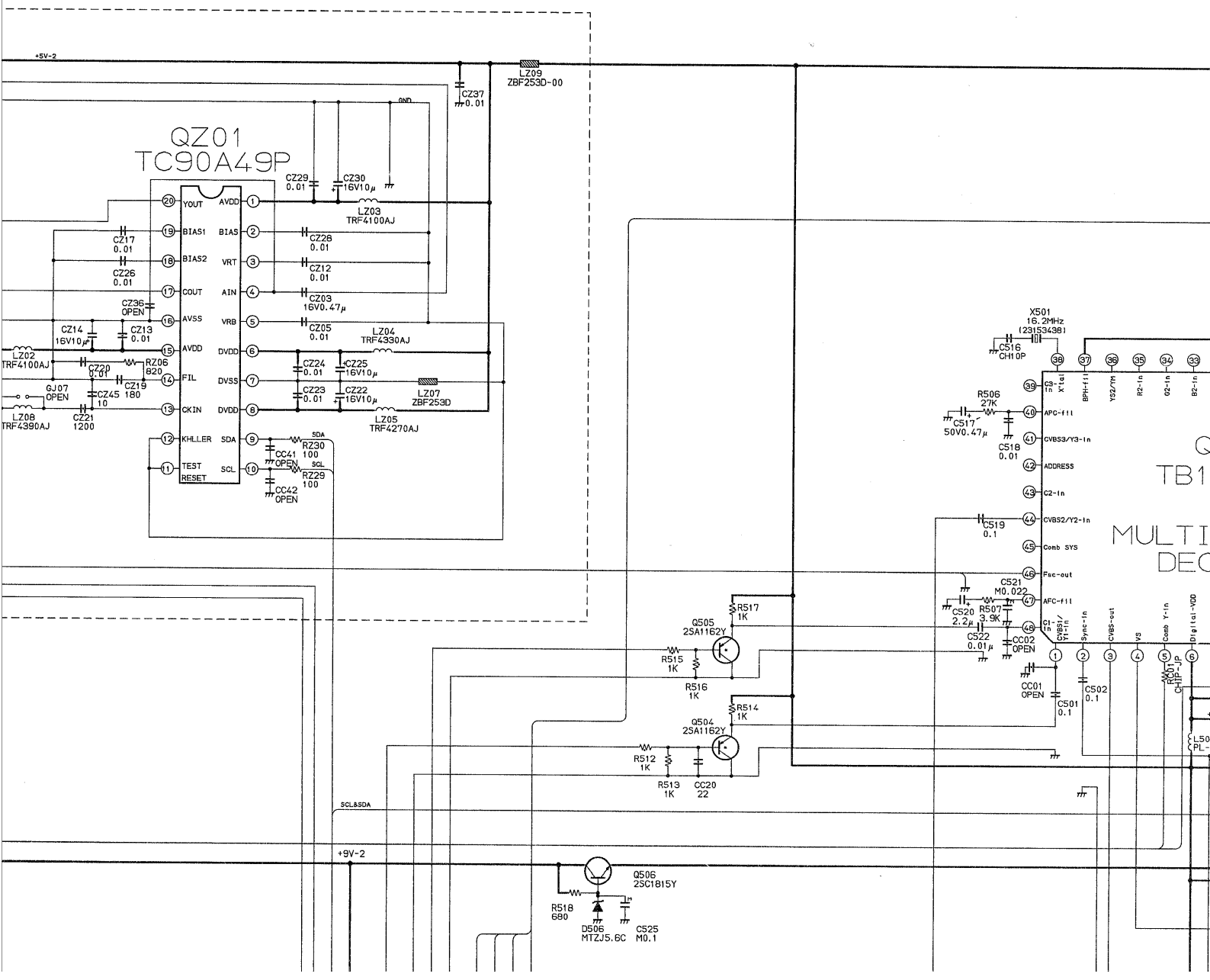
with VTVM from point shown to chassis ground, line voltage 220
ar signal. Voltages reading may vary ±20%.
are taken using a wide band oscilloscope and a low capacity probe.
e taken using a standard colour bar signal.
at CONTRAST and COLOUR controls are in mid position and
control is almost in maximum position. Set other controls for best

NOTES:

1. D.C. resistance value of a principal transformer is shown in this schematic diagram. These are measured for separated from the circuit.
2. The circuits are subject to change without notice.
3. ⬬ : Solder links.

4 5 6 7 8

)A

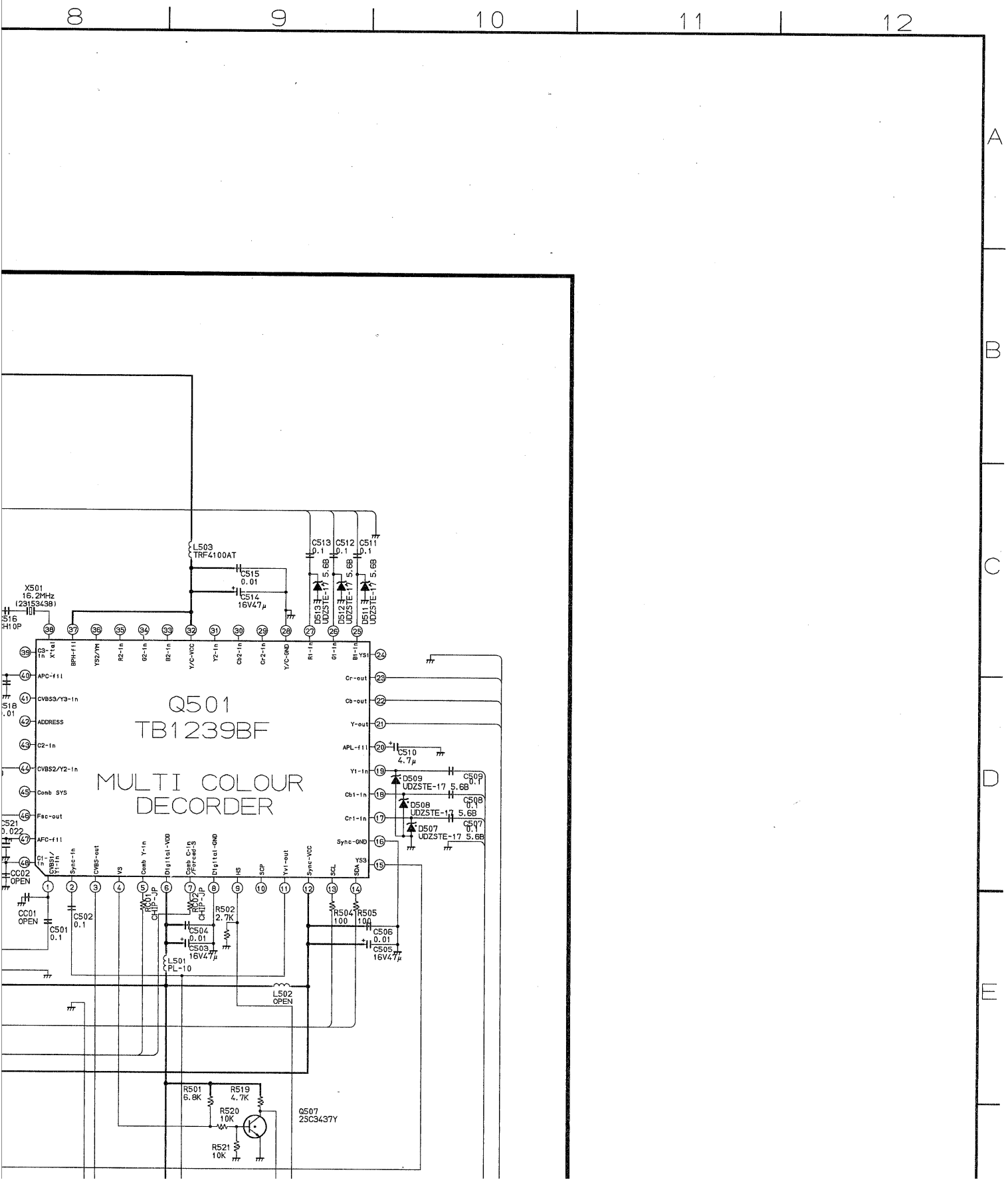


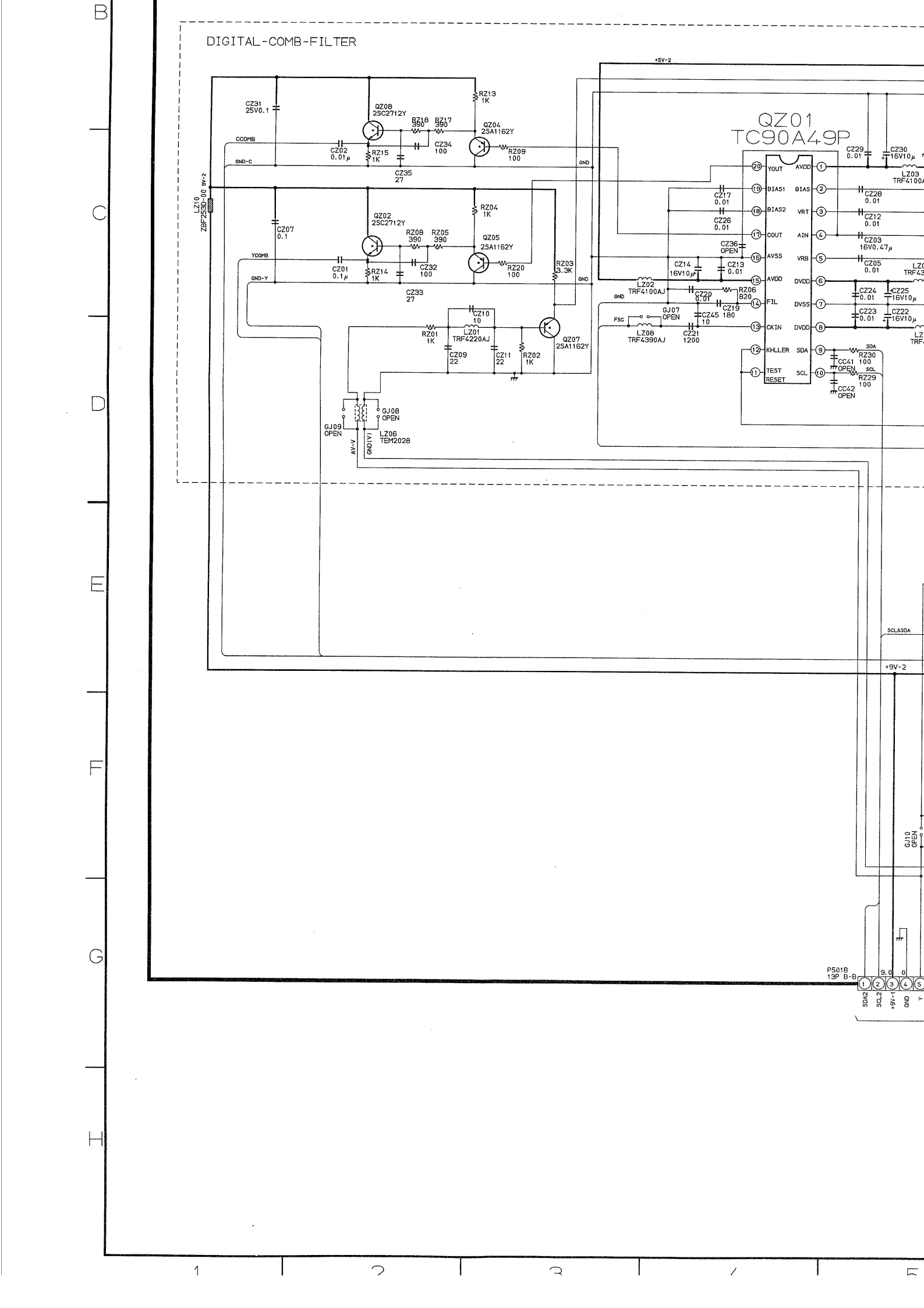
EXPRESSION

this schematic dia-

VALUE OF RESISTOR, CAPACITOR and INDUCTOR

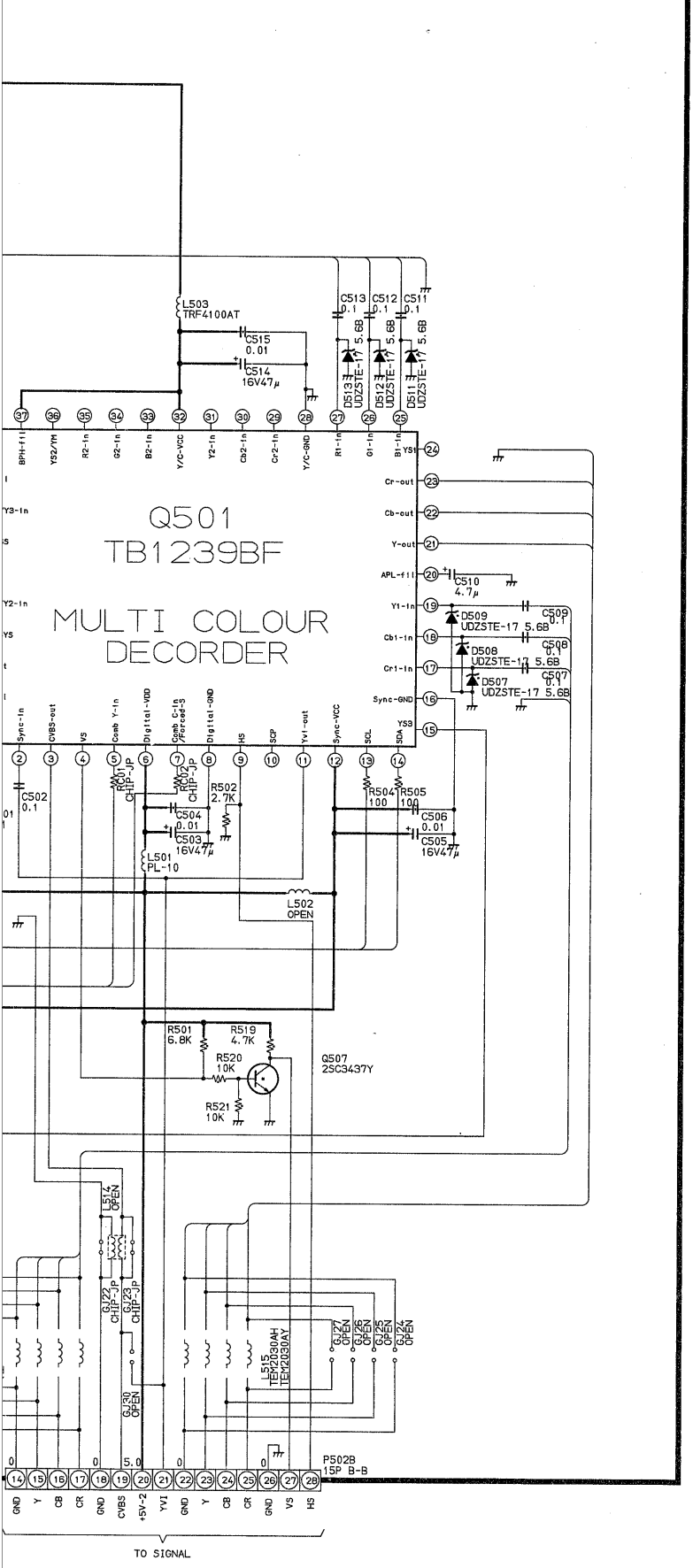
1. Resistance is shown in ohm, k=1,000, M=1,000,000
2. Unless other wise noted in schematic, all capacitor values less than 1 are expressed in μF and the values more than 1 in pF.
3. Unless otherwise noted in schematic, all inductor values more than 1 are expressed in μH, and the values less than 1 in H.




DIGITAL-COMB-FILTER
+5V-2
QZ01
TC90A49P
CCOMB
GND-C
YCOMB
GND-Y
GND
+9V-2
SCL&SDA
AV-Y
GND(V)
FSC
SDA
SCL
P501B
13P B-B
SDA2
SCL2
+9V-1
GND
Y

UNIT SN.	
MCD	SN.23784878
	SN.
	SN.
	SN.

COPPER SIDE PARTS	
	SN.
	SN.
	SN.
	SN.
	SN.



COPPER SIDE PARTS
SN.
SN.
SN.
SN.
SN.

D-COMB&MCD PART
32ZD09G/32ZD09B 6/7
PK3314

SCHEMATIC DIAGRAM MODEL : 32ZD09G / 32ZD09B (7/7)

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on page 3. Do not degrade the safety of the receiver through improper servicing.

OBSERVATION OF VOLTAGES AND WAVEFORMS

1. Voltages read with VTVM from point shown to chassis ground, line voltage 220 volts, colour bar signal. Voltages reading may vary ±20%.
2. All waveforms are taken using a wide band oscilloscope and a low capacity probe.
3. Waveforms are taken using a standard colour bar signal.
4. Make sure that CONTRAST and COLOUR controls are in mid position and BRIGHTNESS control is almost in maximum position. Set other controls for best picture.

NOTES:

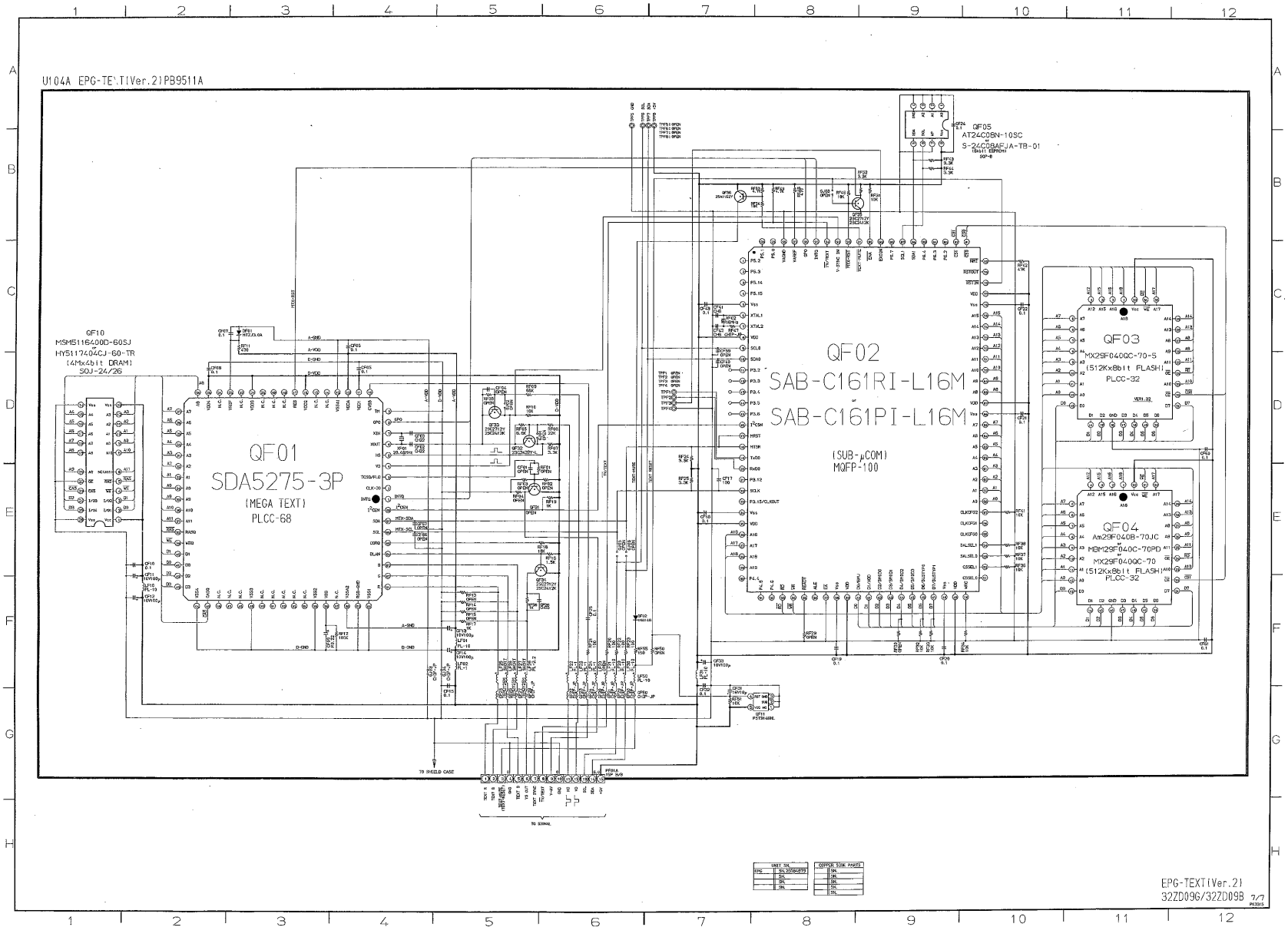
1. D.C. resistance value of a principal transformer is shown in this schematic diagram. These are measured for separated from the circuit.
2. The circuits are subject to change without notice.
3. ⏚ : Solder links.

EXPRESSION

VALUE OF RESISTOR, CAPACITOR and INDUCTOR

1. Resistance is shown in ohm, k=1,000, M=1,000,000
2. Unless other wise noted in schematic, all capacitor values less than 1 are expressed in μF and the values more than 1 in pF.
3. Unless otherwise noted in schematic, all inductor values more than 1 are expressed in μH, and the values less than 1 in H.

30200101



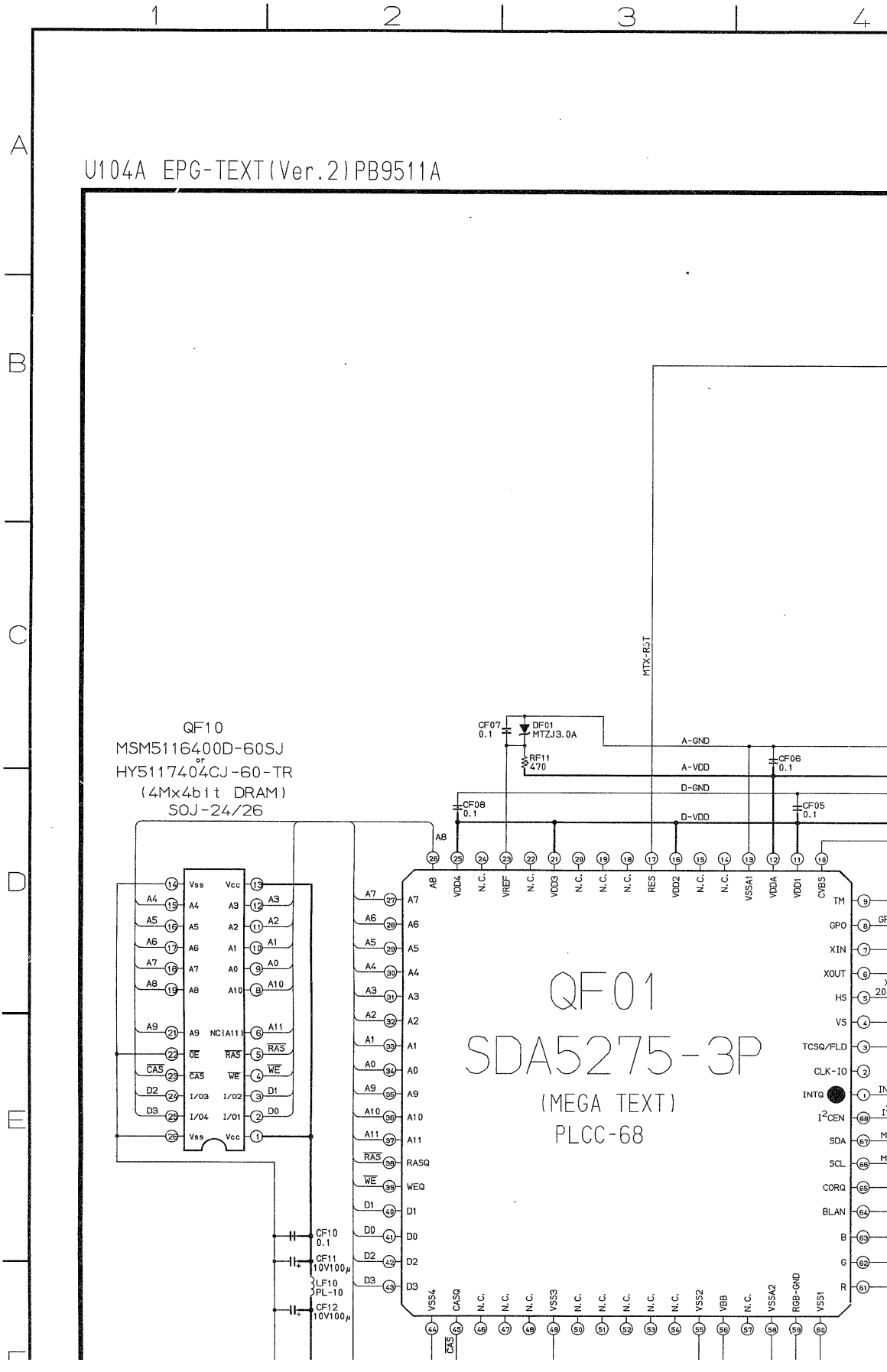
SCHEMATIC DIAGRAM MODEL : 32ZD09G / 32ZD09B (7/7)

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on page 3. Do not degrade the safety of the receiver through improper servicing.

OBSERVATION OF VOLTAGES AND WAVE

1. Voltages read with VTVM from point sho volts, colour bar signal. Voltages reading
2. All waveforms are taken using a wide banc
3. Waveforms are taken using a standard co
4. Make sure that CONTRAST and COLOU BRIGHTNESS control is almost in maximu picture.

30200101

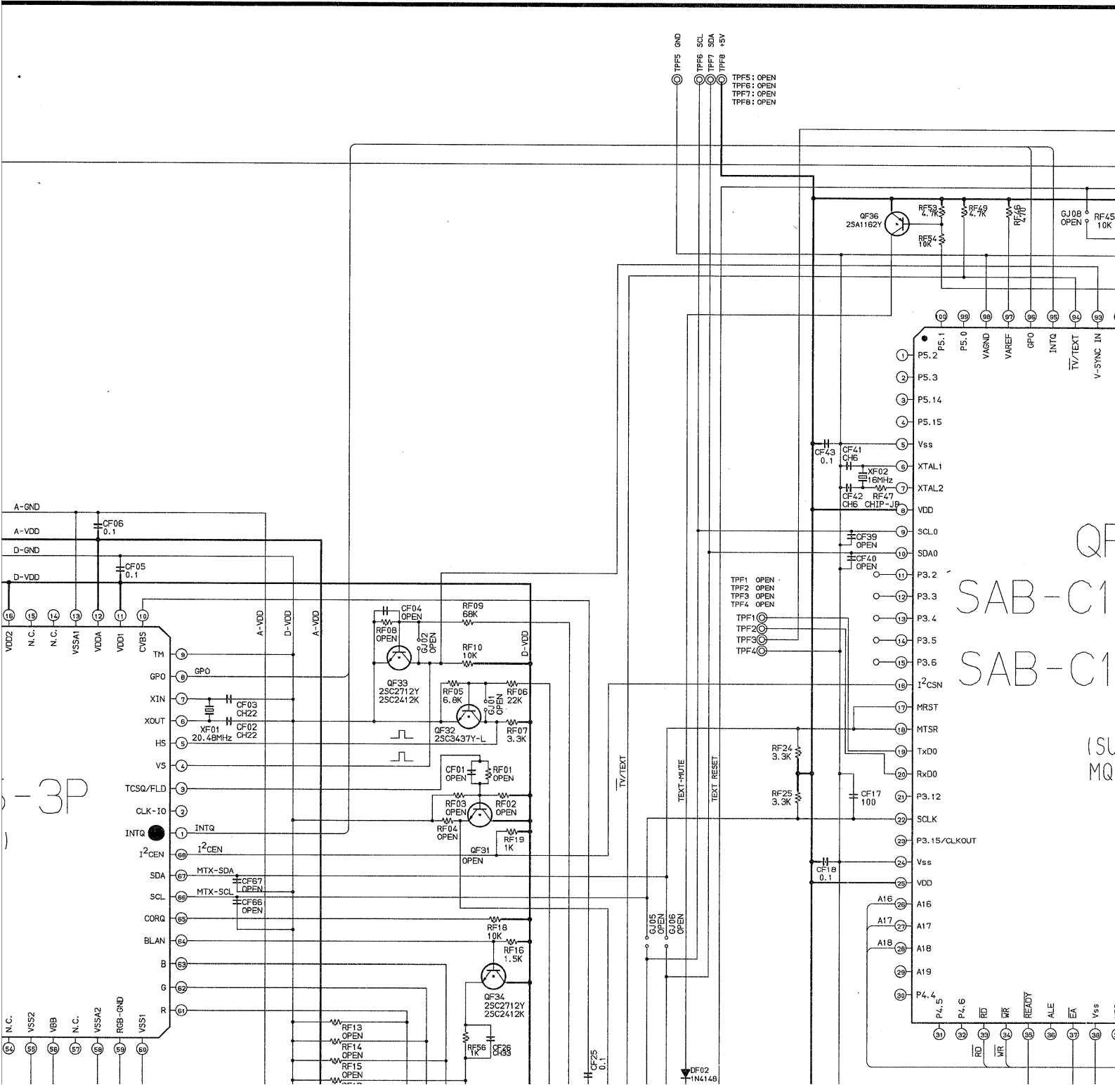


ATION OF VOLTAGES AND WAVEFORMS

s read with VTVM from point shown to chassis ground, line voltage.220
olour bar signal. Voltages reading may vary ±20%.
eforms are taken using a wide band oscilloscope and a low capacity probe.
rms are taken using a standard colour bar signal.
ure that CONTRAST and COLOUR controls are in mid position and
NESS control is almost in maximum position. Set other controls for best

NOTES:

1. D.C. resistance value of a principal transformer is shown in this schematic diagram. These are measured for separated from the circuit.
2. The circuits are subject to change without notice.
3. ● : Solder links.

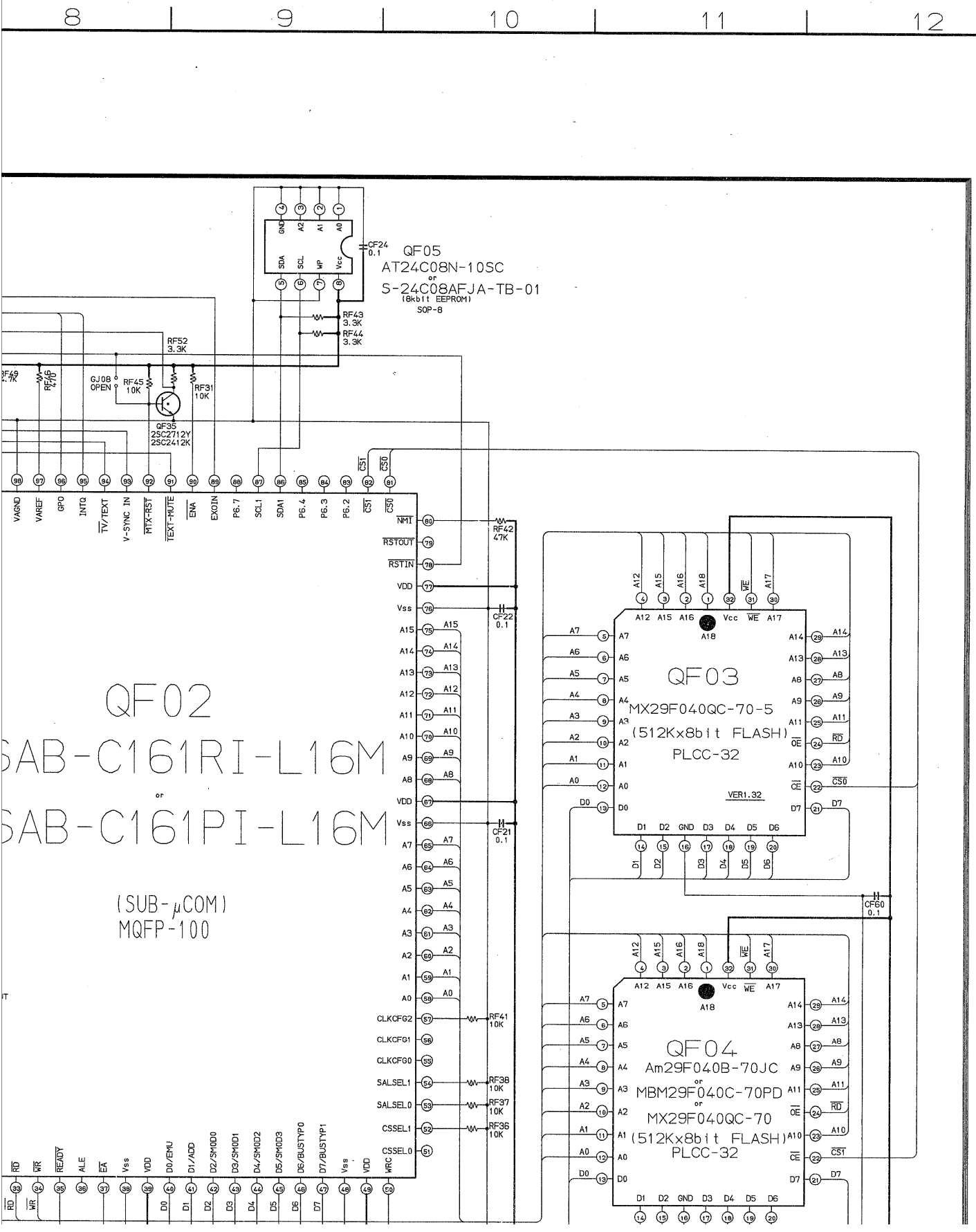


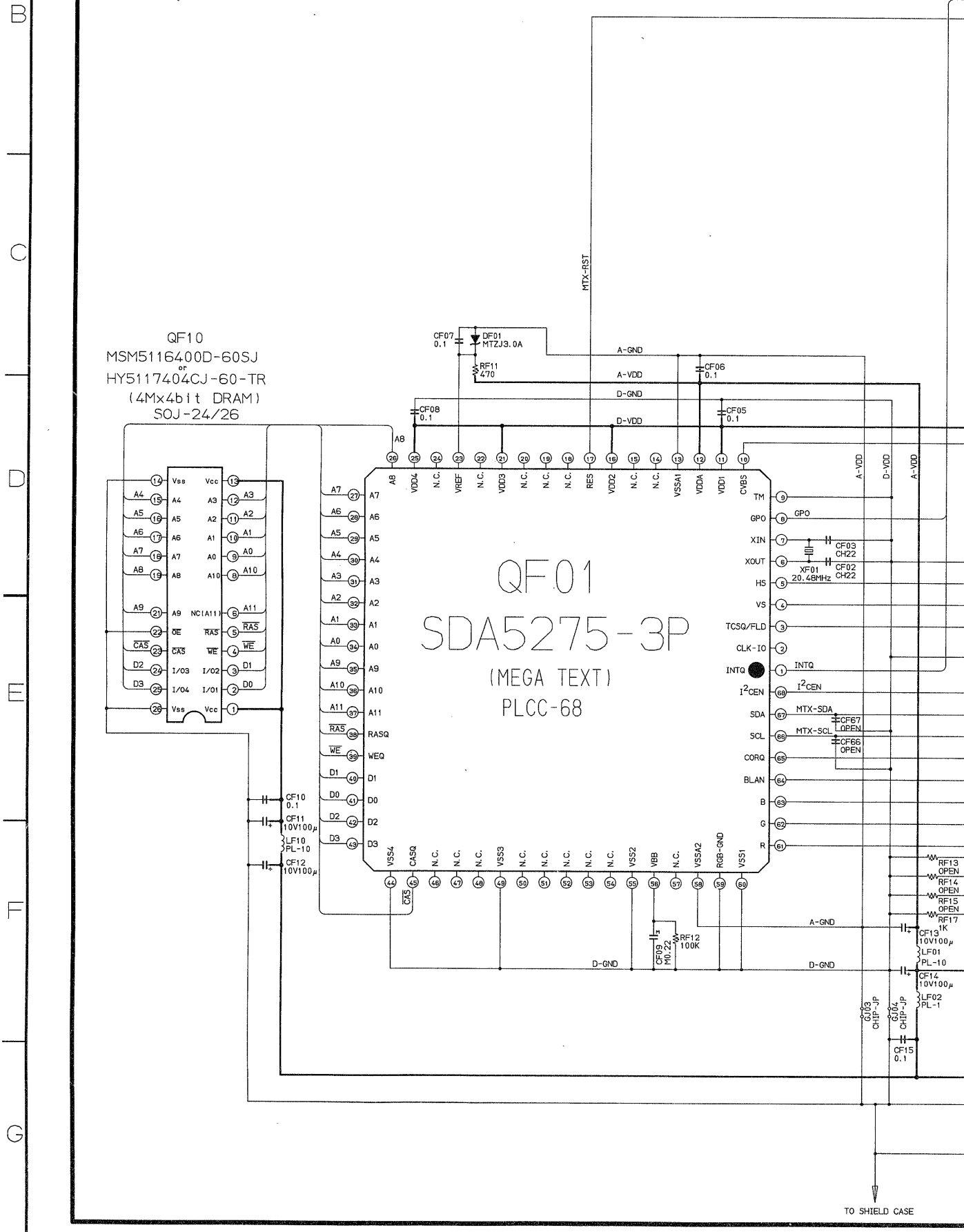
EXPRESSION

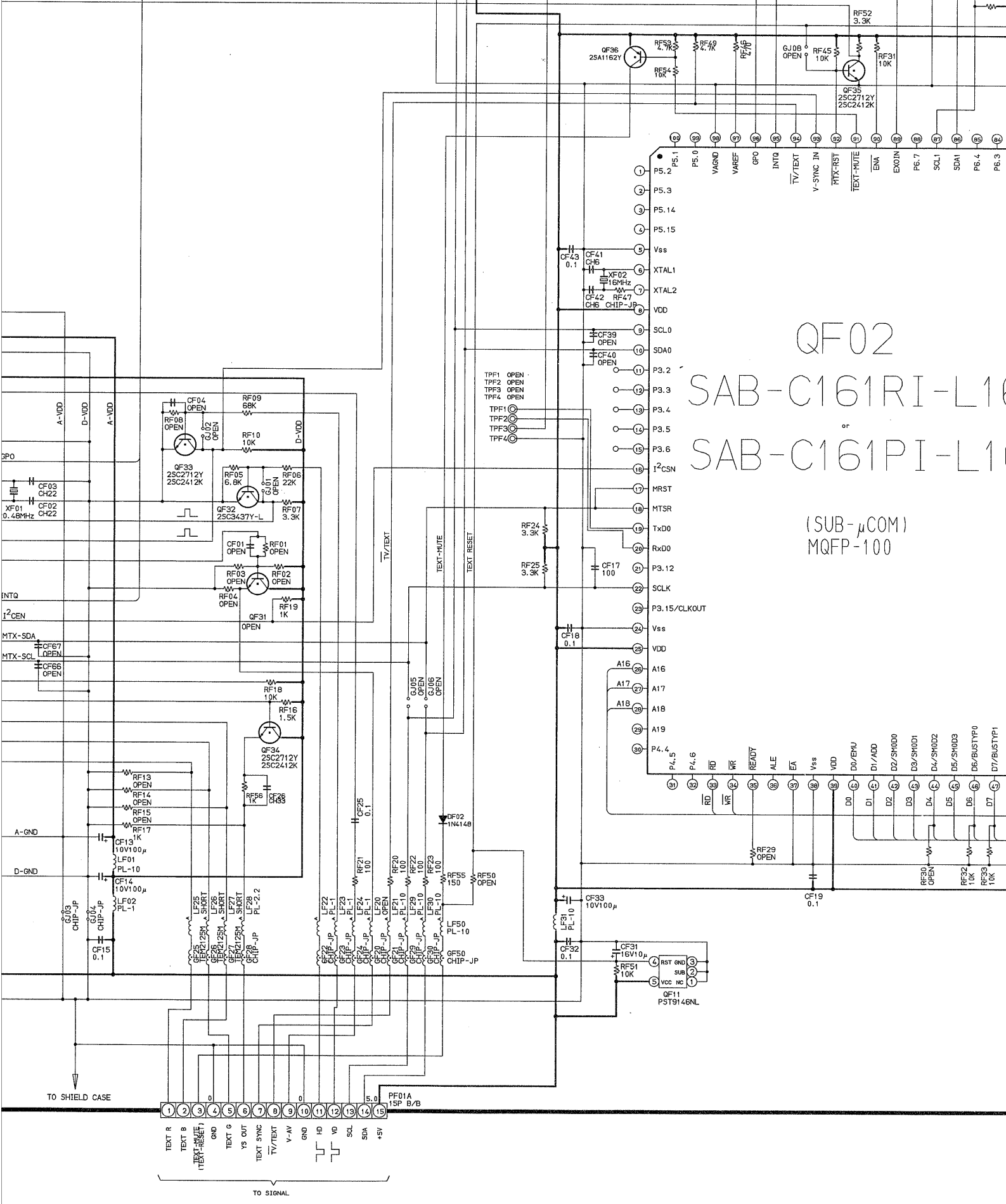
VALUE OF RESISTOR, CAPACITOR and INDUCTOR

1. Resistance is shown in ohm, k=1,000, M=1,000,000
2. Unless other wise noted in schematic, all capacitor values less than 1 are expressed in μF and the values more than 1 in pF.
3. Unless otherwise noted in schematic, all inductor values more than 1 are expressed in μH, and the values less than 1 in H.

this schematic dia-



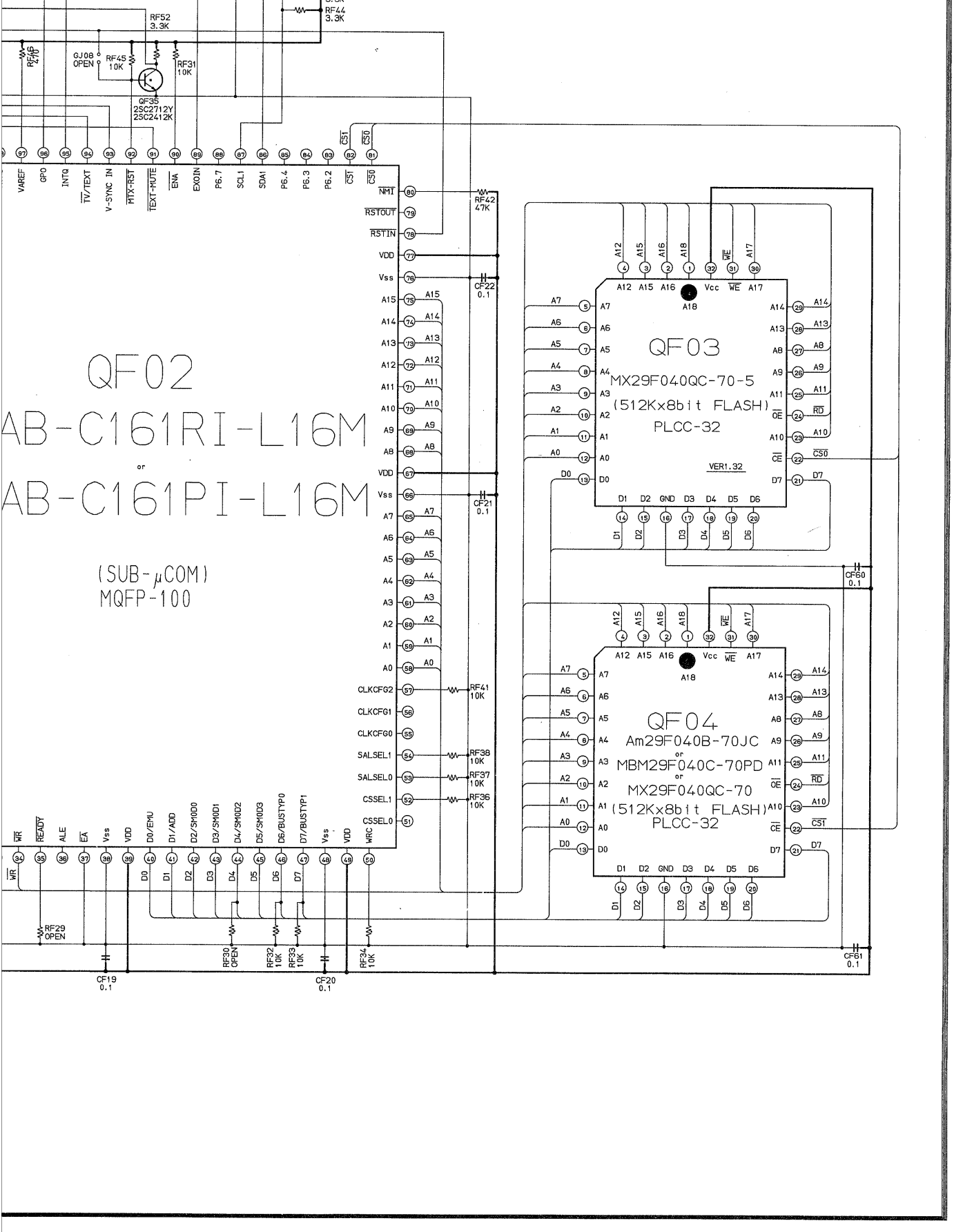

QF10
MSM5116400D-60SJ
or
HY5117404CJ-60-TR
(4Mx4bit DRAM)
SOJ-24/26
QF01
SDA5275-3P
(MEGA TEXT)
PLCC-68
MTX-RST
A-GND
A-VDD
D-GND
D-VDD
CF07 0.1
DF01 MTZJ3.0A
RF11 470
CF06 0.1
CF08 0.1
CF05 0.1
CF03 CH22
CF02 CH22
XF01 20.48MHz
CF10 0.1
CF11 10V100μ
LF10 PL-10
CF12 10V100μ
RF12 100K
CF09 M0.22
CF13 10V100μ
LF01 PL-10
CF14 10V100μ
LF02 PL-1
CF15 0.1
RF13 OPEN
RF14 OPEN
RF15 OPEN
RF17 1K
CF67 OPEN
CF66 OPEN
MTX-SDA
MTX-SCL
GJ03 CHIP-JP
GJ04 CHIP-JP
TO SHIELD CASE



UNIT SN.	
EPG	SN.23784879
	SN.
	SN.
	SN.

COPPER SIDE PARTS	
	SN.
	SN.
	SN.
	SN.
	SN.

5 6 7 8 9



SN.
.23784879
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COPPER SIDE PARTS	
	SN.
	SN.
	SN.
	SN.
	SN.

EPG-TEXT(Ver.2)
32ZD09G/32ZD09B 7/7
PK3315